

**TECHNICAL MANUAL**

**UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT  
MAINTENANCE MANUAL**  
**(INCLUDING REPAIR PARTS AND  
SPECIAL TOOLS LIST)**

**SINK UNIT, SURGICAL SCRUB, FIELD  
(SERIAL NUMBERS 201 - 400)**

**6545-01-302-0228**

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED

---

**HEADQUARTERS, DEPARTMENT OF THE ARMY**

**SEPTEMBER 1991**



## **SAFETY STEPS TO FOLLOW IF SOMEONE IS THE VICTIM OF ELECTRICAL SHOCK**

**DO NOT TRY TO PULL OR GRAB THE INDIVIDUAL.**

**IF POSSIBLE, TURN OFF THE ELECTRICAL POWER.**

**IF YOU CANNOT TURN OFF THE ELECTRICAL POWER, PULL, PUSH, OR LIFT THE PERSON TO SAFETY USING A DRY WOODEN POLE OR A DRY ROPE, OR SOME OTHER INSULATING MATERIAL.**

**SEND FOR HELP AS SOON AS POSSIBLE.**

**AFTER THE INJURED PERSON IS FREE OF CONTACT WITH THE SOURCE OF ELECTRICAL SHOCK, MOVE THE PERSON A SHORT DISTANCE AWAY AND IMMEDIATELY START ARTIFICIAL RESUSCITATION.**

Throughout this manual are **WARNINGS**, **CAUTIONS**, and **NOTES**. Please take time to read these. They are there to protect you and the equipment.

## **WARNING**

Procedures which must be observed to avoid personal injury, and even loss of life.

## **CAUTION**

Procedures which must be observed to avoid damage to equipment, destruction of equipment, or long-term health hazards.

## **NOTE**

Essential information that should be remembered.

a/b blank

TECHNICAL MANUAL

NO. 8-6545-001-24&amp;P

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, DC

**UNIT, DIRECT SUPPORT, AND GENERAL SUPPORT  
MAINTENANCE MANUAL  
(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)  
SINK UNIT, SURGICAL SCRUB, FIELD  
(SERIAL NUMBERS 201 - 400)**

6545-01-302-0228

You can help improve this manual. If you find any mistakes or if you know a way to improve procedures, please let us know. Mail your memorandum, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 (Recommended Changes to Equipment Technical Publications) located in the back of this manual, to: Commander, U.S. Army Medical Materiel Agency, ATTN: SGMMA-M, Frederick, MD 21702-5001. A reply will be furnished directly to you.

Approved for public release; distribution is unlimited.

**TABLE OF CONTENTS**

		Page
	HOW TO USE THIS MANUAL .....	iv
CHAPTER	1. INTRODUCTION	
Section	I. General Information .....	1-1
	II. Equipment Description and Data .....	1-2
	III. Principles of Operation .....	1-6
CHAPTER	2. OPERATING INSTRUCTIONS	
Section	I. Preliminary Procedures .....	2-1
	II. Operating Controls .....	2-10
	III. Unit Operation .....	2-12
	IV. Operation of Auxiliary Equipment .....	2-14
	V. Operation Under Unusual Conditions .....	2-14

CHAPTER	3. UNIT LEVEL MAINTENANCE	
Section	I. General Information .....	3-1
	II. Service Upon Receipt of Equipment .....	3-1
	III. Lubrication Instructions .....	3-2
	IV. Preventive Maintenance Checks and Services .....	3-2
	V. Troubleshooting .....	3-4
	VI. Maintenance Instructions .....	3-7
	VII. Cleaning Procedures .....	3-12
	VIII. Storage and Shipment Procedures .....	3-12
CHAPTER	4. DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE	
Section	I. General Information .....	4-1
	II. Troubleshooting .....	4-1
APPENDIX	A. REFERENCES .....	A-1
	B. MAINTENANCE ALLOCATION CHART .....	B-1
	C. COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LIST .....	C-1
	D. EXPENDABLE AND DURABLE SUPPLIES AND MATERIALS LIST .....	D-1
	E. REPAIR PARTS AND SPECIAL TOOLS LIST .....	E-1
	F. ADDITIONAL AUTHORIZATION LIST .....	F-1
GLOSSARY	.....	GLOSSARY-1
INDEX	.....	INDEX-1

### LIST OF ILLUSTRATIONS

Figure No.	Title	Page
1-1	Portable scrub sink .....	1-3
1-2	Case data plate .....	1-5
1-3	Case instruction decal .....	1-5
1-4	Control box data plate .....	1-5
1-5	Control box caution decal .....	1-6
1-6	Electrical power conversion switch decal .....	1-6
2-1	Case lid compartment packing configuration .....	2-1
2-2	Case packing configuration .....	2-2
2-3	Case lower level packing configuration .....	2-3
2-4	Frame assembly .....	2-3
2-5	Control box installation .....	2-4
2-6	Basin installation .....	2-4
2-7	Lower support rod installation .....	2-5
2-8	Upper support rod and convenience tray installation .....	2-5
2-9	Upper and lower support rods connection .....	2-6
2-10	Faucet installation .....	2-7
2-11	Hose installations .....	2-7
2-12	Inlet and outlet connections .....	2-8
2-13	Non-pressurized water source .....	2-9

2-14	Accessory pouches installation .....	2-10
2-15	Control box components .....	2-11
2-16	Primer bulb .....	2-11
2-17	Electrical power converter switch .....	2-12
3-1	Electrical schematic .....	3-5
3-2	Electrical wiring diagram .....	3-6
3-3	Control box water flow diagram .....	3-6
E-1	Control box .....	E-2
E-2	Water pump assembly .....	E-4
E-3	Water heater .....	E-8
E-4	Foot operated control valve .....	E-10
E-5	Faucet, convenience tray, and basin assembly .....	E-12
E-6	Support rods .....	E-14
E-7	Hose assemblies .....	E-16
E-8	Electrical power cables and ground strap .....	E-18
E-9	Frame assembly .....	E-20

## LIST OF TABLES

Table No.	Title	Page
1-1	Nomenclature cross-reference list .....	1-2
1-2	Dimensions .....	1-4
1-3	Weights .....	1-4
1-4	Miscellaneous characteristics .....	1-4
3-1	Preventive maintenance checks and services .....	3-3
3-2	General troubleshooting .....	3-4

## HOW TO USE THIS MANUAL

- This manual provides all the information needed to understand the capabilities, functions, and characteristics of this equipment. It describes how to set up, operate, test, and repair the item. You must familiarize yourself with the entire manual before operating or beginning a maintenance task.
- The manual is arranged by chapters, sections, and paragraphs followed by appendixes, a glossary, an index, and DA Forms 2028-2. Use the table of contents to help locate the chapter or section for the general subject area needed. The index will help locate more specific subjects.
- Multiple figures and tables are provided for your ease in using this manual. Words that are both capitalized and in quotation marks are names of components or words that you will actually see on the equipment.
- Chapter 3 provides a systematic method of inspecting and servicing the equipment. In this way, small defects can be detected early before they become a major problem causing the unit to fail to complete its mission. Make a habit of doing the checks and services in the same order each time and anything wrong will be detected quickly.
- Only perform maintenance functions specified in the maintenance allocation chart for your level of maintenance. Maintenance functions specified for higher levels of maintenance frequently require additional training; test, measurement, and diagnostic equipment; or tools.

# CHAPTER 1

## INTRODUCTION

---

### Section I. GENERAL INFORMATION

#### 1-1. Scope.

This manual describes the portable scrub sink; provides unit personnel with equipment technical data and installation procedures; and provides operational and maintenance functions, services, and actions. This manual applies only to serial numbers 201 - 400. Additional information follows:

- a. *Type of manual.* Unit, direct support (DS), and general support (GS) maintenance (including repair parts and special tools list).
- b. *Model number and equipment name.* No model number. (Use FEDLOG reference number 9-0454.) Sink Unit, Surgical Scrub, Field.
- c. *Purpose of equipment.* To provide a lightweight, easily assembled system that heats and dispenses potable water used for routine hand washing and surgical scrubbing in a field medical facility.

#### 1-2. Explanation of abbreviations and terms.

Special or unique abbreviations, acronyms, and terms used within this manual are explained in the glossary.

#### 1-3. Maintenance forms, records, and reports.

TB 38-750-2 prescribes forms, records, reports, and procedures.

#### 1-4. Destruction of Army materiel to prevent enemy use.

AR 40-61 contains instructions for destruction and disposal of Army medical materiel. Also, the SB 8-75 series publications provide periodic information and/or instructions on the disposal of medical materiel that are hazardous.

#### 1-5. Administrative storage.

a. Placement of the portable scrub sink in administrative storage should be for short periods of time when a shortage of maintenance effort exists. Items should be in mission readiness condition within 24 hours or within the time factors as determined by the directing authority. During the storage period, appropriate maintenance records will be kept.

b. Army equipment placed in administrative storage will have preventive maintenance performed in accordance with the preventive maintenance checks and services (PMCS) listed in table 3-1 before storage. When equipment is removed from storage, PMCS will be performed to ensure operational readiness.

c. Inside storage is preferred for equipment selected for administrative storage.

#### 1-6. Preparation for storage or shipment.

Refer to chapter 3, section VIII for the procedures used to prepare the portable scrub sink for storage or shipment.

**1-7. Quality assurance or quality control (QA or QC).**

TB 740-10/DLAM 4155.5/AFR 67-43 contains QA or QC requirements and procedures.

**1-8. Nomenclature cross-reference list.**

Table 1-1 identifies official versus commonly used nomenclatures.

Table 1-1. Nomenclature cross-reference list.

Common name	Official nomenclature
Case	Storage/shipping container
Female quick-disconnect	Coupling, half, quick-disconnect, female
Male quick-disconnect	Coupling, half, quick-disconnect, male
Portable scrub sink	Sink unit, surgical scrub, field
VELCRO®	VELCRO® is defined as VELCRO® brand hook and/or loop fasteners, and VELCRO® is a registered trademark of VELCRO Industries

**1-9. Reporting and processing medical materiel complaints and/or quality improvement reports.**

AR 40-61 prescribes procedures for submitting medical materiel complaints and/or quality improvement reports for the portable scrub sink.

**1-10. Warranty information.**

The warranty expiration date is 26 February 1992.

**Section II. EQUIPMENT DESCRIPTION AND DATA****1-11. Equipment characteristics, capabilities, and features.**

- a. The portable scrub sink is a self-contained system. It is designed to operate from either a pressurized or non-pressurized source of water.
- b. The system operates from two voltages and frequencies as specified in table 1-4.
- c. The portable scrub sink is also designed to allow operation without electrical power by raising the potable water can above the level of the faucet and depressing the foot pedal.
- d. The system includes a case designed for both storage and shipment.

**1-12. Description of significant components.**

Components described in subparagraphs 1-12a - 1-12k are illustrated in figure 1-1.

- a. *Faucet.* The faucet dispenses water to the basin.
- b. *Tray.* The convenience tray provides space to hold surgical soap and scrub brushes. A bracket on the underside of the tray allows a variable height adjustment and locks the faucet height.
- c. *Drain hose.* The clear plastic tubing attaches to the outside bottom of the basin to channel waste water to a waste water can.
- d. *Frame assembly.* The frame provides the basic sink support.
- e. *Control box.* The control box contains the water heater, pump, flow control valve, ground fault circuit interrupter (GFCI), electrical power converter switch, electrical circuitry, and the electrical power cable receptacle.

*f. Electrical power cable.* The two electrical power cables provide for connection to either a 115-volt or 230-volt source of electrical power.

*g. Outlet hose assembly and primer bulb.* The primer bulb and outlet hose assembly provide a means to prime the pump.

*h. Basin.* The basin is made of industrial grade water-proof fabric and stores water for hand washing and surgical device cleaning.

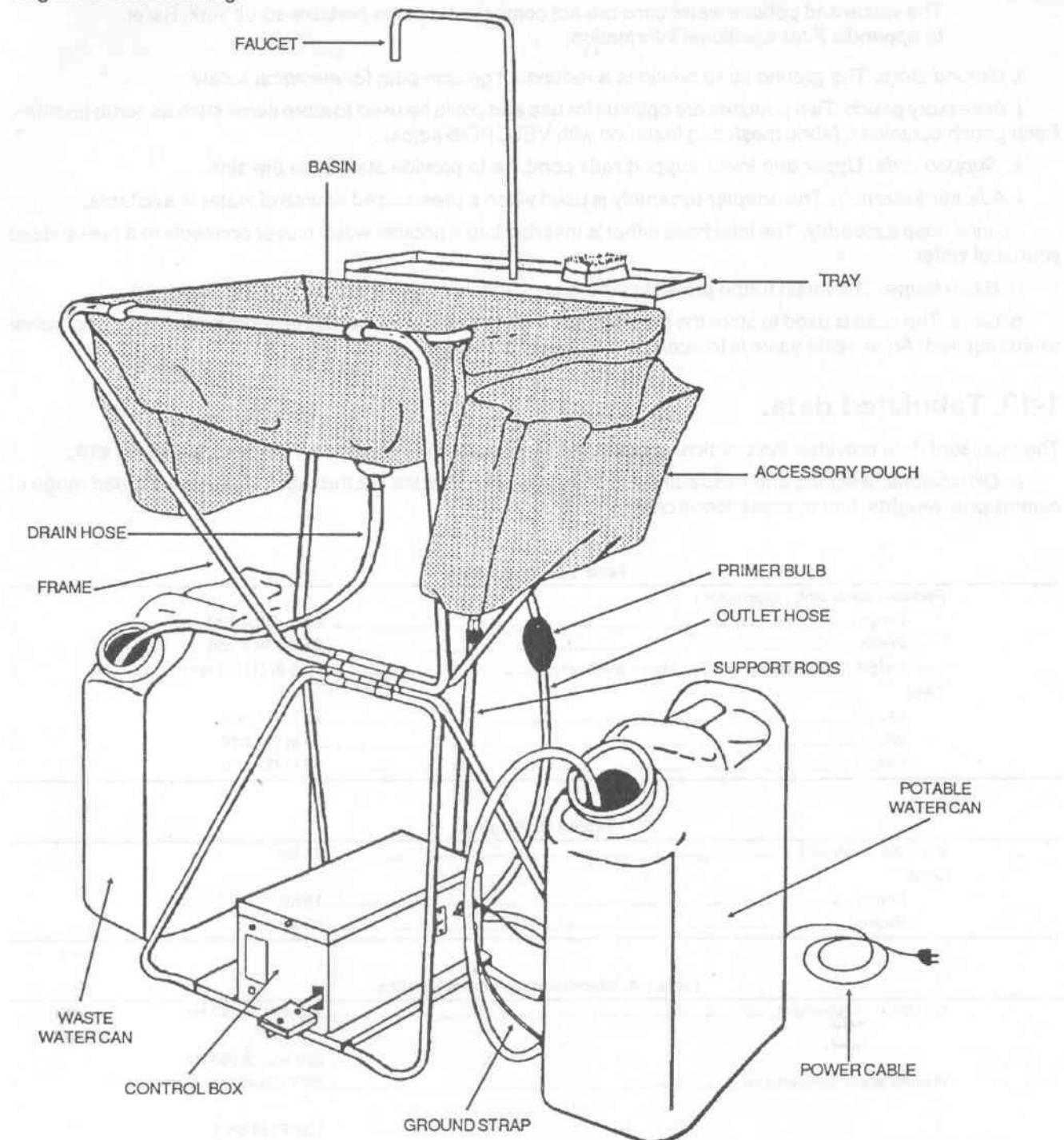


Figure 1-1. Portable scrub sink.

**NOTE**

A rubber mat is placed in the bottom of the fabric basin for protection against sharp instruments.

**NOTE**

The waste and potable water cans are not components of the portable scrub sink. Refer to appendix F for additional information.

- i. Ground strap.* The ground strap provides a redundant ground path for electrical safety.
- j. Accessory pouch.* Two pouches are optional for use and could be used to store items such as scrub brushes. Each pouch contains a fabric mesh bag fastened with VELCRO® strips.
- k. Support rods.* Upper and lower support rods combine to provide stability to the sink.
- l. Adapter assembly.* The adapter assembly is used when a pressurized source of water is available.
- m. Inlet hose assembly.* The inlet hose either is inserted into a potable water can or connects to a pressurized source of water.
- n. Basin frame.* The basin frame provides a means of attachment and support for the basin.
- o. Case.* The case is used to store the portable scrub sink when not in use and to serve as a shipping container when required. An air relief valve is located on the front of the case.

## 1-13. Tabulated data.

The tabulated data provides the physical characteristics and other information for the portable scrub sink.

- a. Dimensions, weights, and miscellaneous characteristics.* Tables 1-2 through 1-4 provide a broad range of dimensions, weights, and miscellaneous characteristics.

Table 1-2. Dimensions.

Portable scrub sink (assembled)	
Length	23 in (58.4 cm)
Width	23 in (58.4 cm)
Height (faucet clamped 10 in above the basin)	46.5 in (118.1 cm)
Case	
Length	24 in (61 cm)
Width	24 in (61 cm)
Height	13 in (33 cm)

Table 1-3. Weights.

Portable scrub sink	25 lbs
Case	
Empty	15 lbs
Packed	40 lbs

Table 1-4. Miscellaneous characteristics.

Electrical requirement	115 volt, 50/60 Hz
	or
	230 volt, 50/60 Hz
Heated water temperature	.85°F (29.4°C)
	to
	105°F (40.6°C)
Thermostat cut-off temperature	122°F (50°C)

- b. Identification, instruction, and warning plates, decals, or markings.*

## (1) Case.

- (a) Identification information as depicted on the case data plate is shown in figure 1-2.
- (b) Instructions for operation of the air relief (breather) valve are provided in figure 1-3.

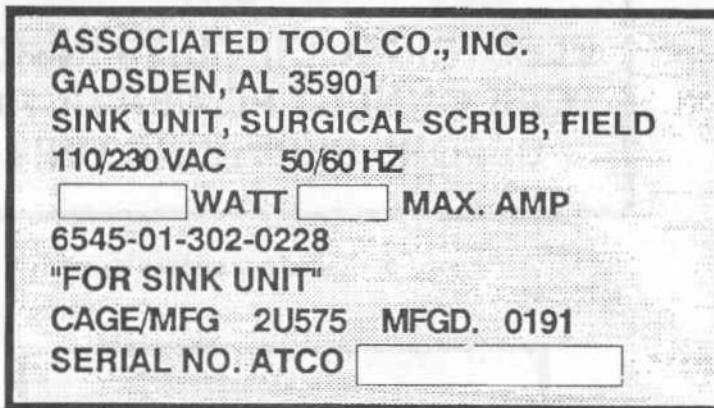


Figure 1-2. Case data plate.

**RELIEF VALVE,  
AUTOMATIC, TWO-WAY  
DEPRESS CORE BEFORE  
OPENING LID.**

Figure 1-3. Case instruction decal.

## (2) Control box.

- (a) Identification information as provided on the data plate located on the control box cover is shown in figure 1-4.
- (b) A decal, located on the control box cover providing electrical safety caution information, is illustrated in figure 1-5.
- (c) A decal, located on the right side of the control box, provides caution information for the electrical power conversion switch as shown in figure 1-6.
- (d) Additional decals identify the flow control valve and the water inlet and outlet connectors.

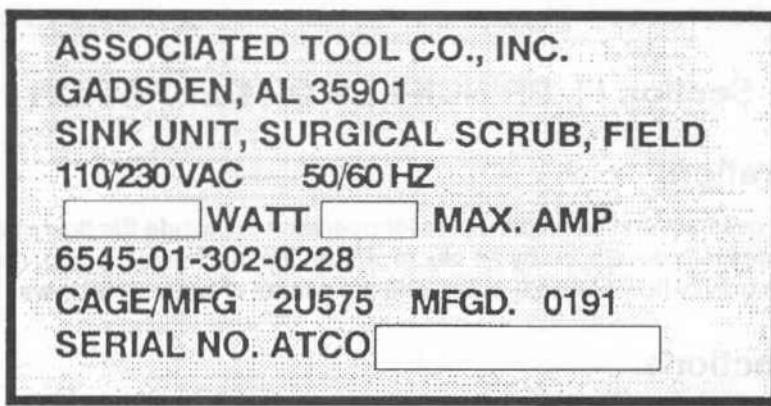


Figure 1-4. Control box data plate.

**CAUTION**  
**ELECTRICAL CIRCUITS INSIDE**  
**DISCONNECT POWER CORD**  
**BEFORE SERVICING UNIT**

*Figure 1-5. Control box caution decal.*

**CAUTION**  
**SELECT CORRECT**  
**VOLTAGE**

*Figure 1-6. Electrical power conversion switch decal.*

#### **1-14. Model differences.**

Model differences are not applicable since this manual covers a single model. However, design changes in assemblies, subassemblies, or components occur periodically. Information on such engineering changes will be published in supply bulletins and subsequent changes to this manual.

#### **1-15. Safety, care, and handling.**

- a. Observe each WARNING, CAUTION, and NOTE in this manual. The use of electrical power and heated water may be hazardous to personnel.
- b. Ensure that the instructions on the GFCI are followed exactly.
- c. Follow the instructions for cleaning instruments. The basin fabric can be easily damaged.

### **Section III. PRINCIPLES OF OPERATION**

#### **1-16. Basic operation.**

The portable scrub sink uses several basic principles for operation to include the flow of water through the system using suction and pressure developed by an electrically driven mechanical pump, the conversion of electrical energy into heat, the gravity flow of waste water, and the control of water flow by way of valves.

#### **1-17. Control functions.**

The operation of the portable scrub sink is controlled by the foot pedal, electrical power switch/GFCI, and the flow control knob as explained in paragraph 2-3.

# CHAPTER 2

## OPERATING INSTRUCTIONS

### Section I. PRELIMINARY PROCEDURES

#### 2-1. Unpacking the unit.

- a. Depress the air relief (breather) valve on the front of the case to release any pressure.
- b. Unfasten the 12 twist-lock latches.
- c. Open the case.
- d. Observe how the components are packed by studying the illustrations in figures 2-1 and 2-2.
- e. Unpack the lid of the case (fig 2-1) by pulling the two VELCRO® straps upward and opening the compartment cover. Remove the basin and set it aside. Close and fasten the compartment cover. Set the lid of the case aside.

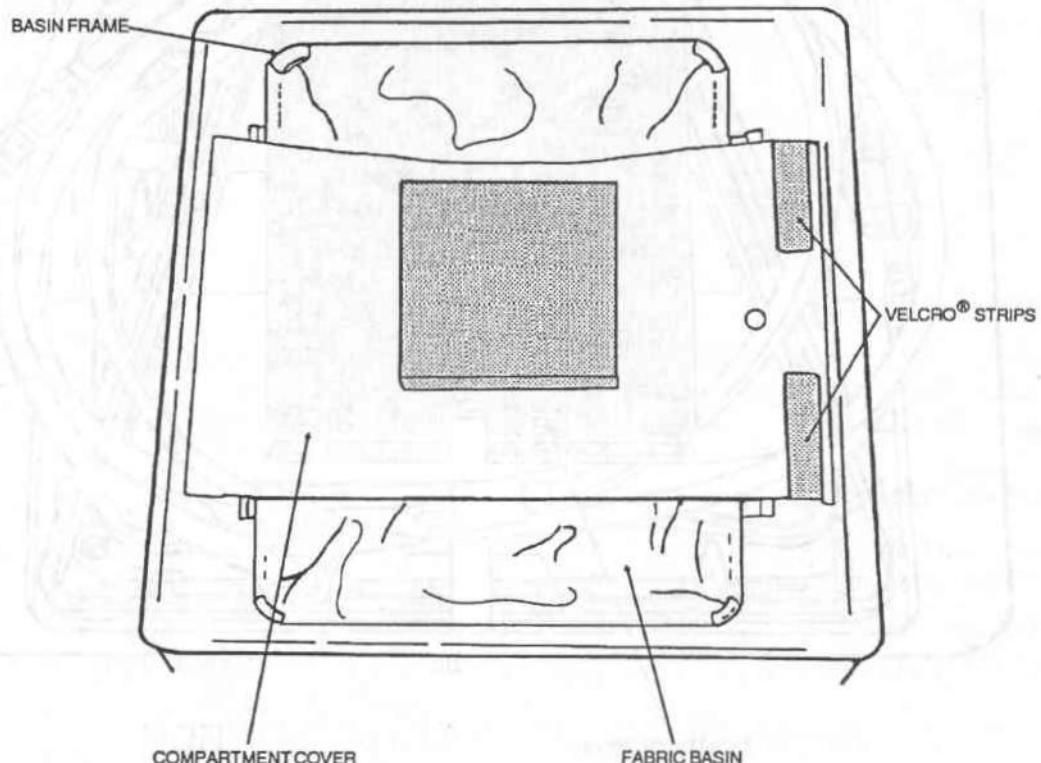


Figure 2-1. Case lid compartment packing configuration.

- f. Unpack the upper level of the case (fig 2-2) by removing the following items:
  - (1) Black rubber basin mat
  - (2) Commercial manuals
  - (3) Control box
  - (4) 115-volt electrical power cable
  - (5) Inlet and outlet hose assemblies and drain hose
  - (6) Accessory pouches

## (7) Spare components and basic issue items

## NOTE

The remaining components are fastened in the lower level of the case.

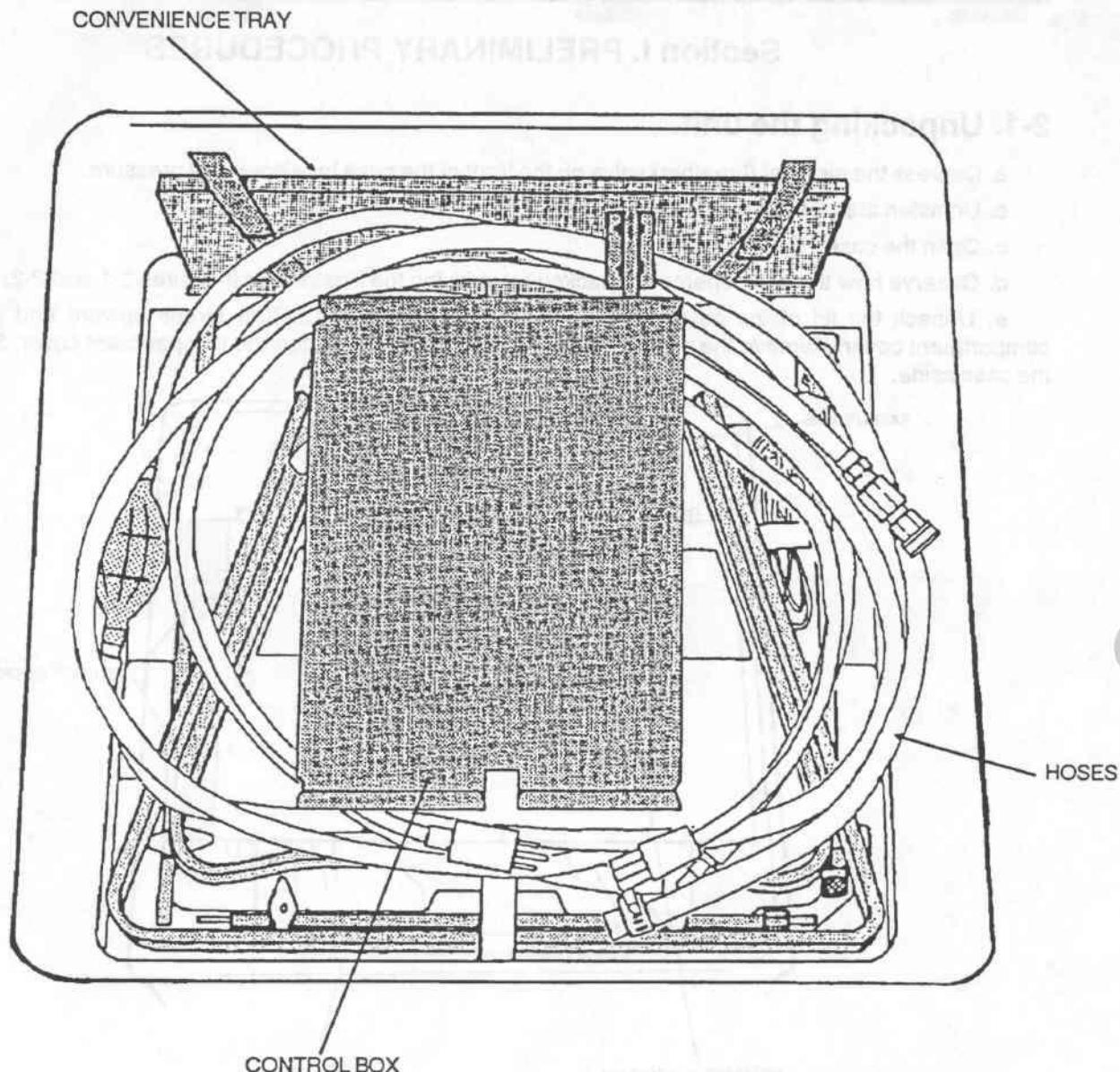


Figure 2-2. Case packing configuration.

g. Unpack the lower level of the case (as illustrated in figure 2-3) by either pulling the VELCRO® strips upward or turning the twist-lock latches. The components stored in this lower level include the following items:

- (1) Convenience tray
- (2) Frame assembly
- (3) Upper and lower support rods
- (4) Faucet
- (5) 230-volt electrical power cable

h. Return the spare components and basic issue items to the case. Close the case and set it aside.

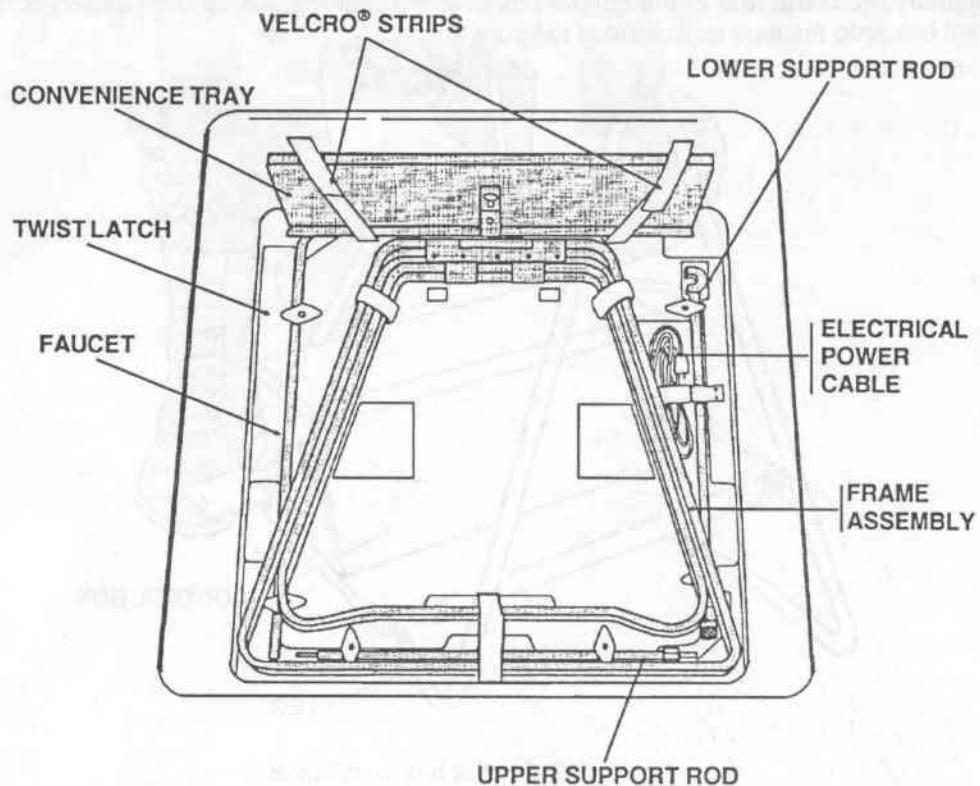


Figure 2-3. Case lower level packing configuration.

## 2-2. Assembling the unit.

a. Unfold the frame assembly by moving both sets of legs in an arc. Position the short legs on the floor or ground and position the long legs in an upward direction as illustrated in figure 2-4.

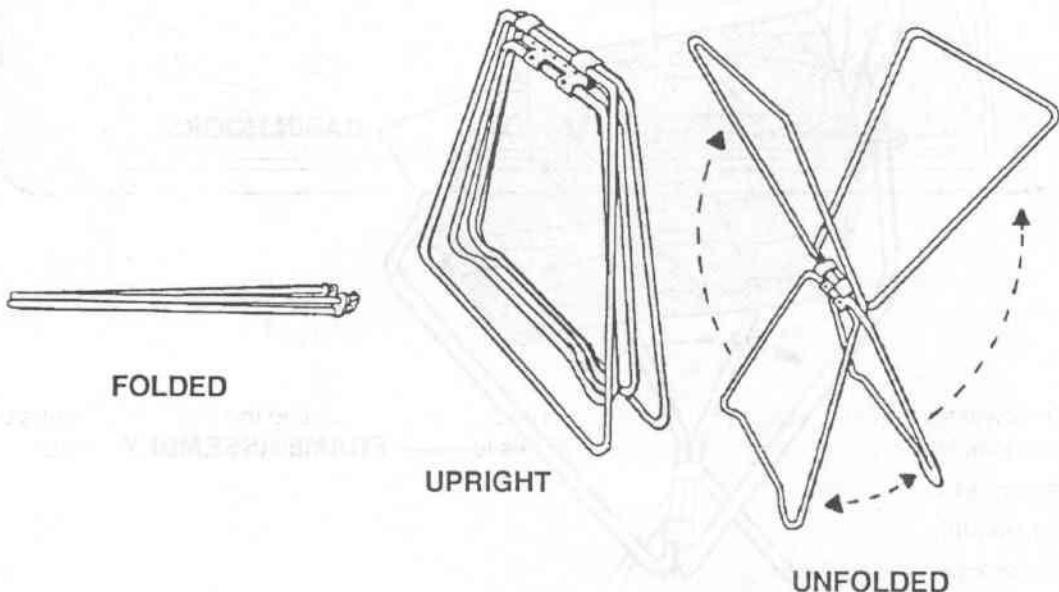


Figure 2-4. Frame assembly.

b. Hook the front of the control box over the front lower leg of the frame assembly. Then, using your foot to keep the legs stationary, hook the rear of the control box over the rear leg. Adjust the position of both legs to snugly fit the control box onto the legs as illustrated in figure 2-5.

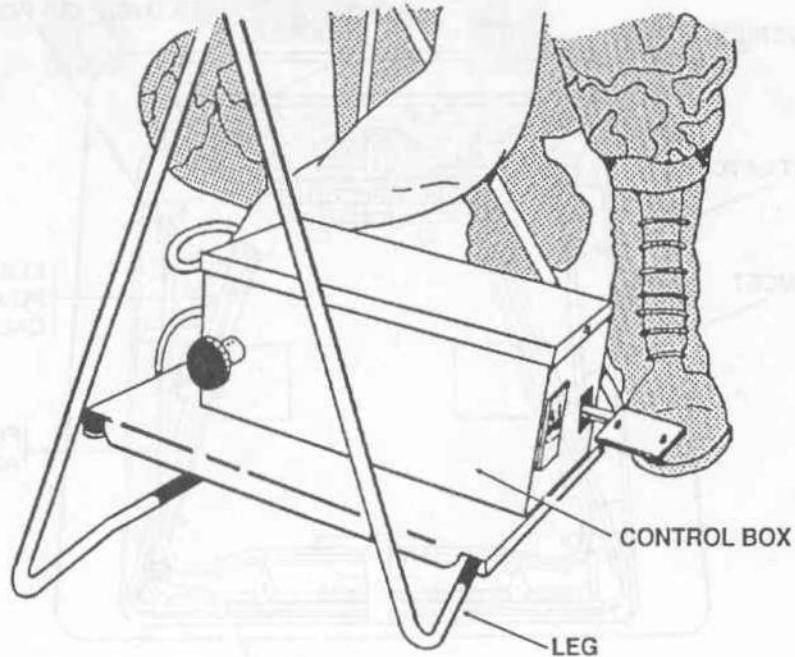


Figure 2-5. Control box installation.

c. Attach the basin assembly by clipping the four hooks onto the upper legs of the frame assembly and adjusting the legs outward as illustrated in figure 2-6.

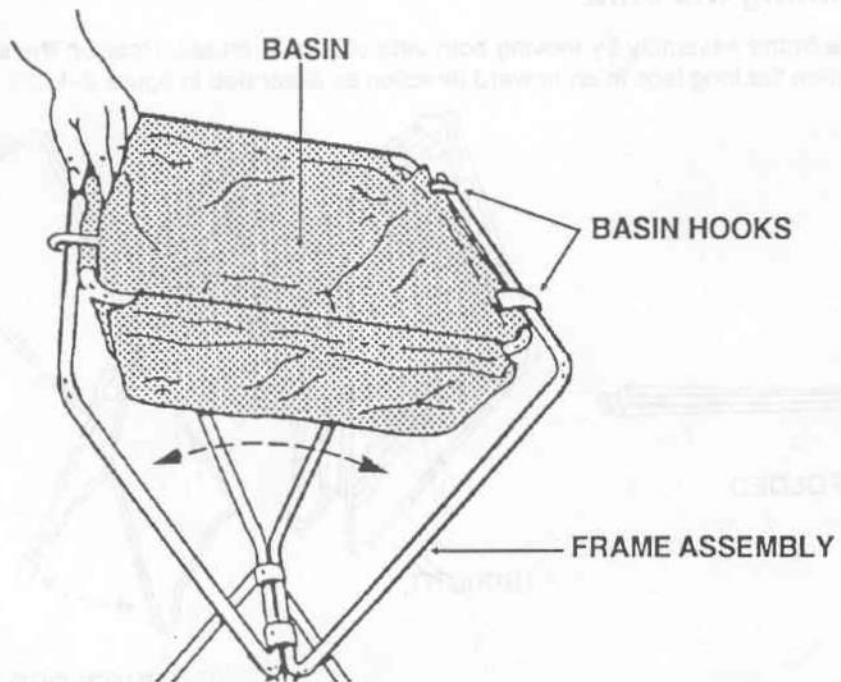


Figure 2-6. Basin installation.

d. Insert the hook of the lower support rod through the cutout in the rear of the control box. The hook opening will face downward. Place the lower support rod on the ground or floor until later as illustrated in figure 2-7.

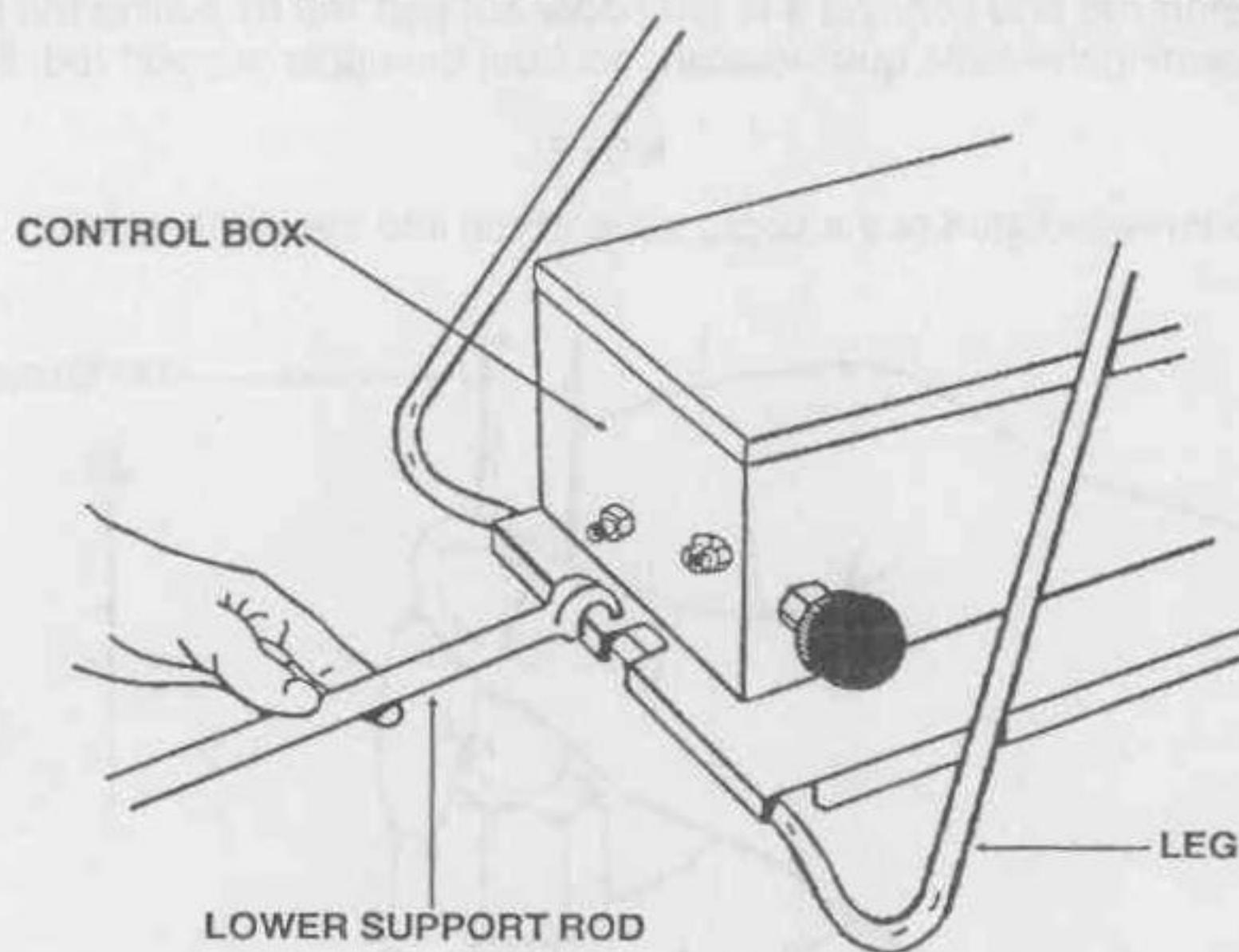


Figure 2-7. Lower support rod installation.

e. Install the convenience tray by sliding the slotted brackets on the underside of the tray onto the frame assembly. Continue to hold the tray in position and screw the threaded stud of the upper support rod into the bracket on the underside of the tray as illustrated in figure 2-8. When the threaded stud is hand tight, loosen it a half turn.

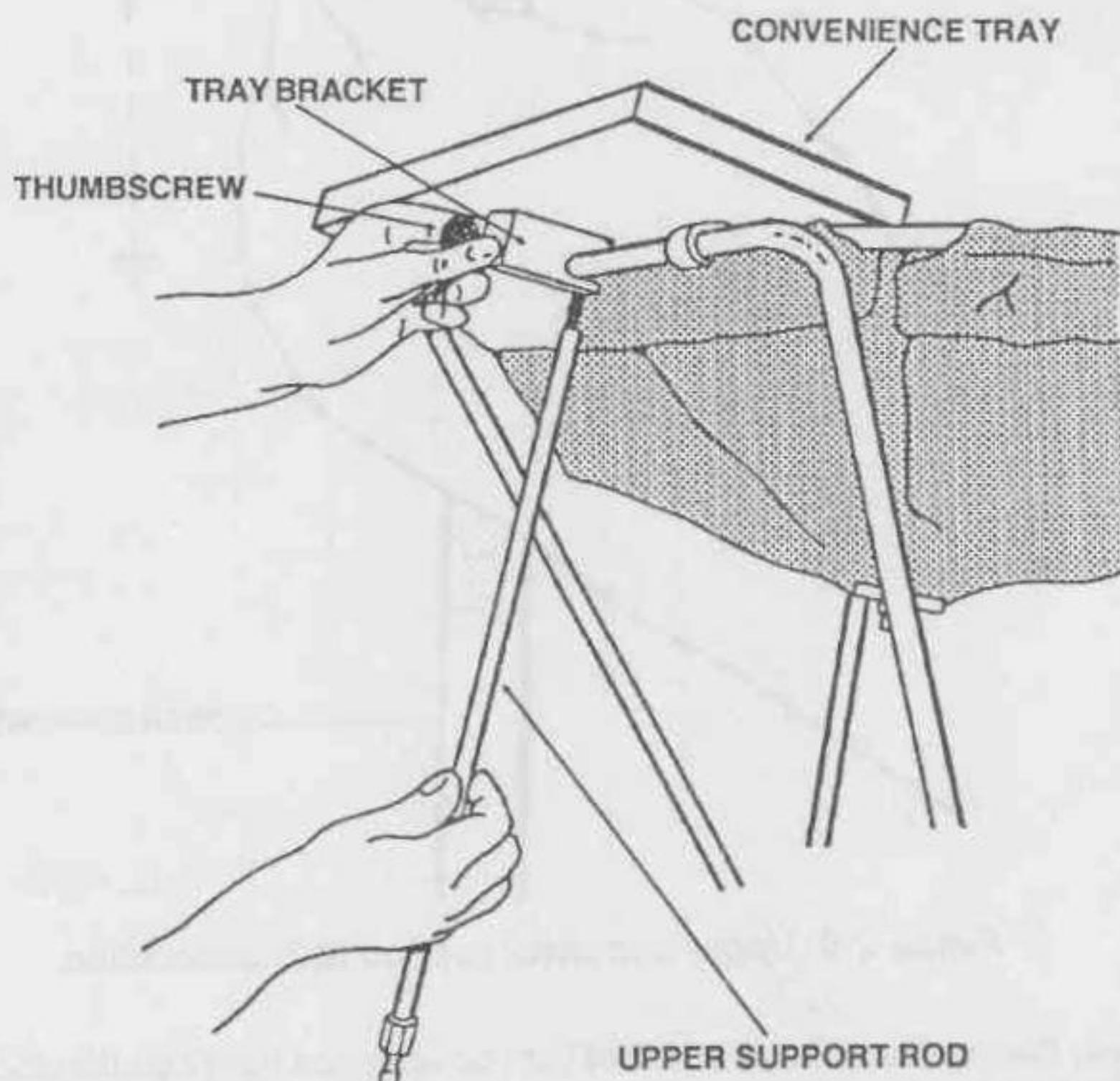


Figure 2-8. Upper support rod and convenience tray installation.

f. Lift the lower support rod and connect it to the upper support rod by pulling the female quick-disconnect collar downward and inserting the male quick-disconnect from the upper support rod. Refer to figure 2-9.

**NOTE**

Tighten the threaded stud of the upper support rod into the tray bracket.

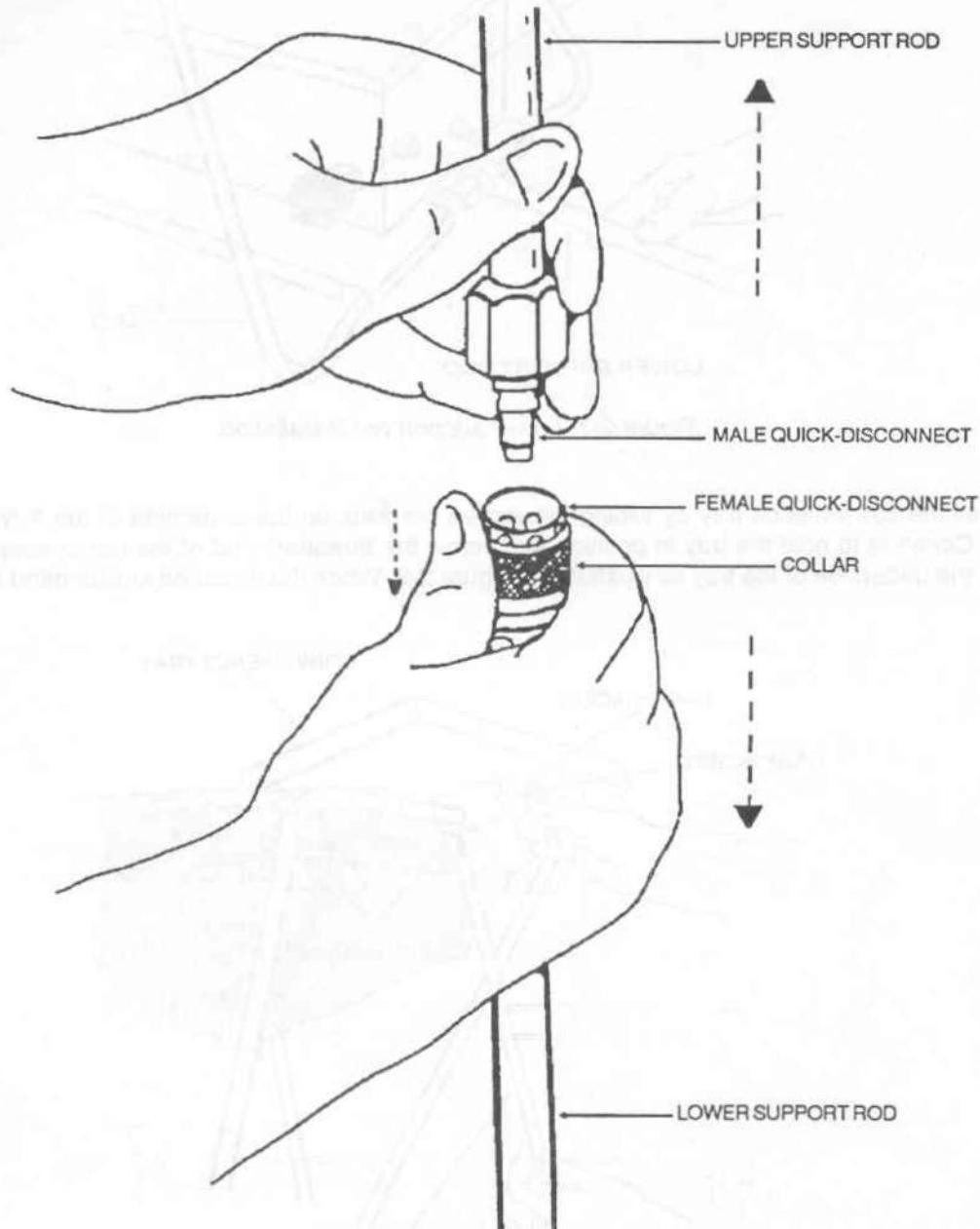


Figure 2-9. Upper and lower support rods connection.

g. Turn the thumbscrew (located on the underside of the convenience tray) counterclockwise. Place the faucet into the mounting hole (fig 2-10) and adjust the height as desired. Turn the thumbscrew clockwise to hold the faucet stationary.

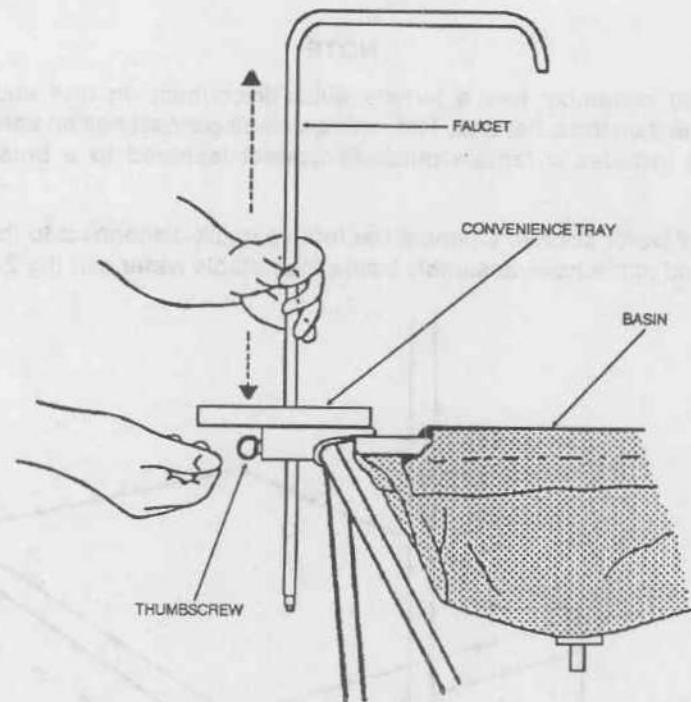


Figure 2-10. Faucet installation.

**CAUTION**

Excessive pressure on the thumbscrew will damage the faucet.

h. Install the inlet hose assembly (fig 2-11) by following the procedures for either a non-pressurized or a pressurized source of water.

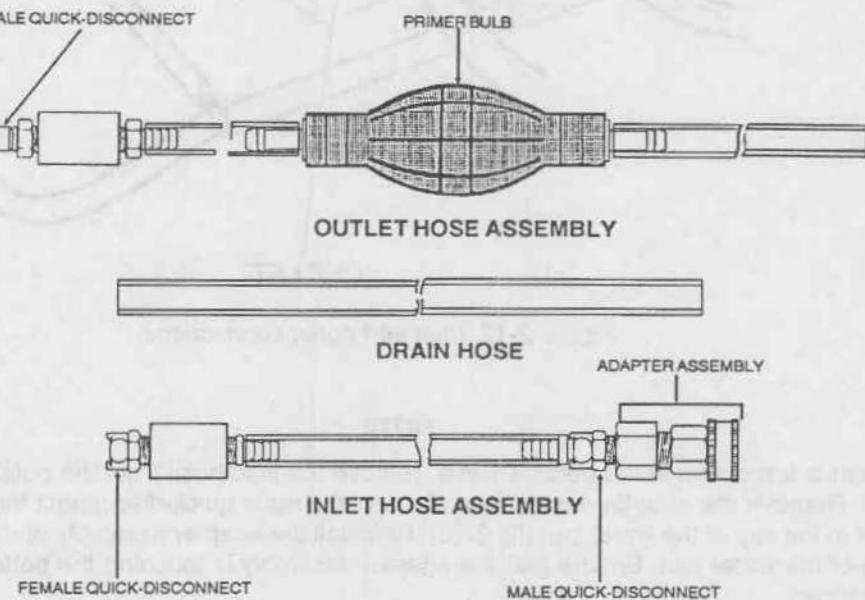


Figure 2-11. Hose installations.

**NOTE**

The inlet hose assembly has a female quick-disconnect on one end and a male quick-disconnect on the other end. The male quick-disconnect has an adapter assembly attached that includes a female quick-disconnect fastened to a brass water hose connector.

(1) *Non-pressurized water source.* Connect the female quick-disconnect to the male inlet on the control box and place the other end of the hose assembly inside the potable water can (fig 2-13).

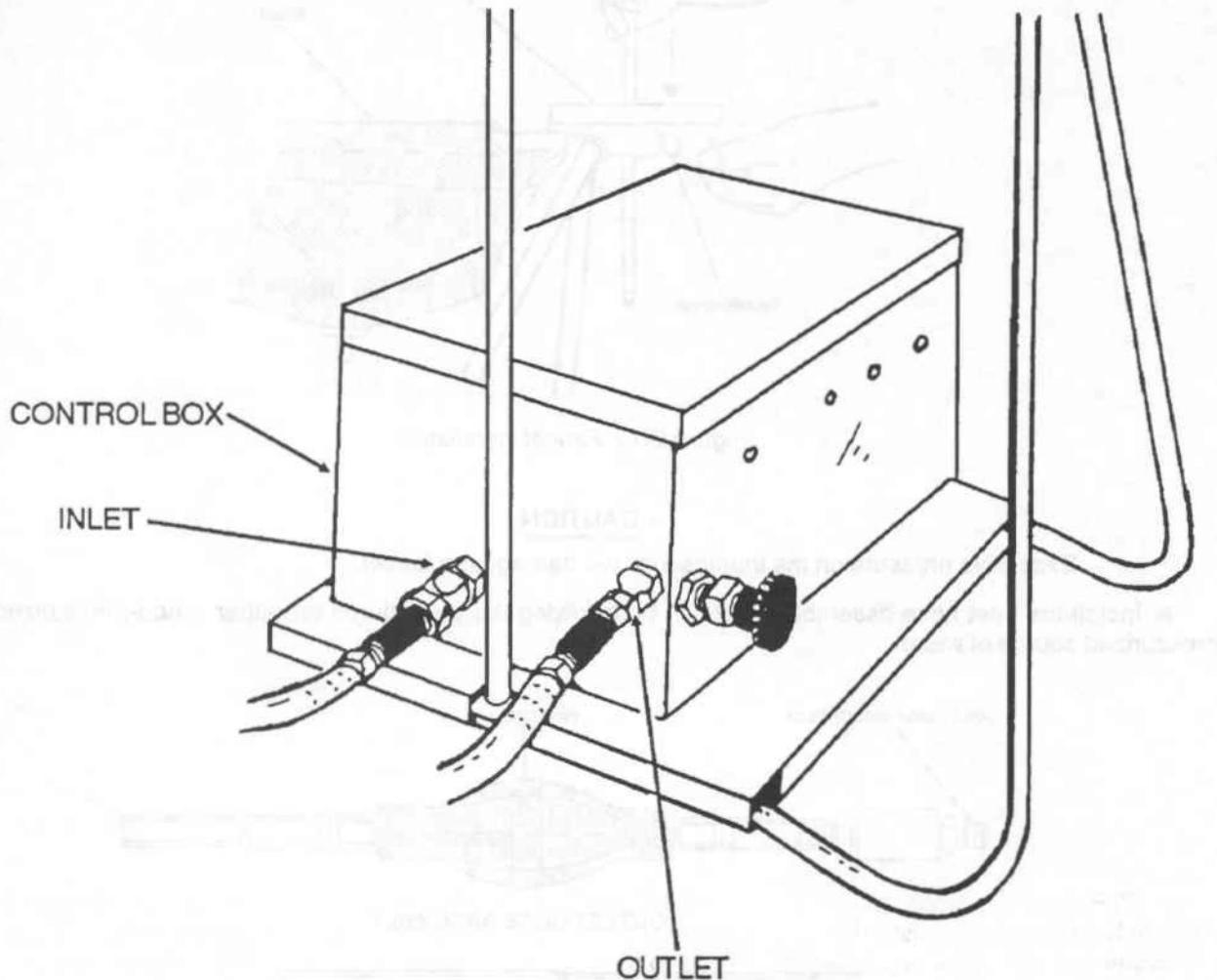


Figure 2-12. Inlet and outlet connections.

**NOTE**

If dust is a problem in the potable water, remove the inlet hose from the potable water can. Remove the adapter assembly and insert the male quick-disconnect through the hole in the cap of the water can (fig 2-13). Reinstall the adapter assembly and close the cap of the water can. Ensure that the adapter assembly is touching the bottom of the water can.

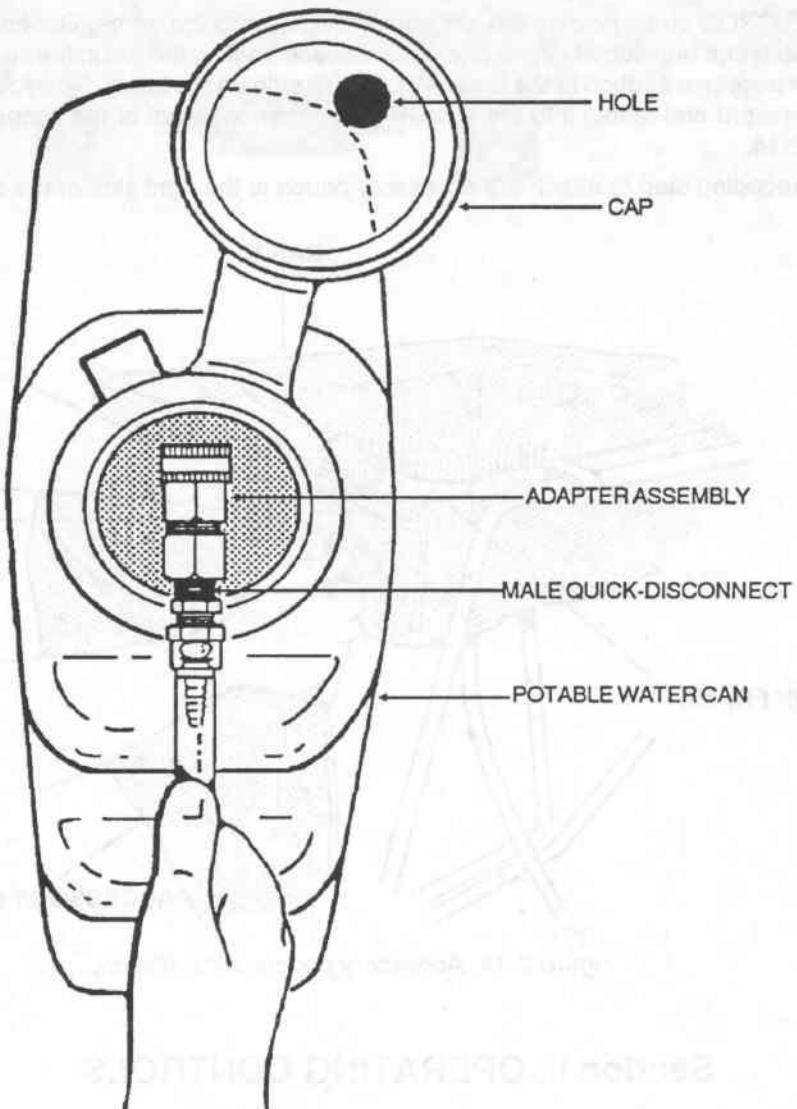


Figure 2-13. Non-pressurized water source.

(2) **Pressurized water source.** Depress the quick-disconnect collar and remove the adapter assembly from the inlet hose assembly. Install the adapter assembly onto the inlet connector of the control box (fig 2-12). A 3/4 inch water hose can now be connected directly to the control box eliminating the need for a potable water can.

**NOTE**

Replace the unused inlet hose assembly into the case to prevent losing it.

- i. Install the outlet hose assembly by connecting the male quick-disconnect on one end to the female outlet on the control box (fig 2-12). Then, slide the opposite end of the outlet hose assembly over the barbed fitting on the faucet (fig E-5).
- j. Install the drain hose by sliding one end over the drain fitting on the underside of the fabric basin and placing the other end in the waste water can.

**NOTE**

Place the waste water can on the left side (when facing the portable scrub sink).

k. Open the VELCRO® strips holding the left side of the basin to the frame. Observe that two VELCRO® strips are now visible with one positioned above and one positioned below the basin frame. Attach the VELCRO® strip on the back of the accessory pouch to the lower VELCRO® strip on the basin. Now fold the upper VELCRO® strip on the basin downward and fasten it to the VELCRO® strip on the front of the accessory pouch. This step is illustrated in figure 2-14.

l. Repeat the preceding step to attach the accessory pouch to the right side of the basin.

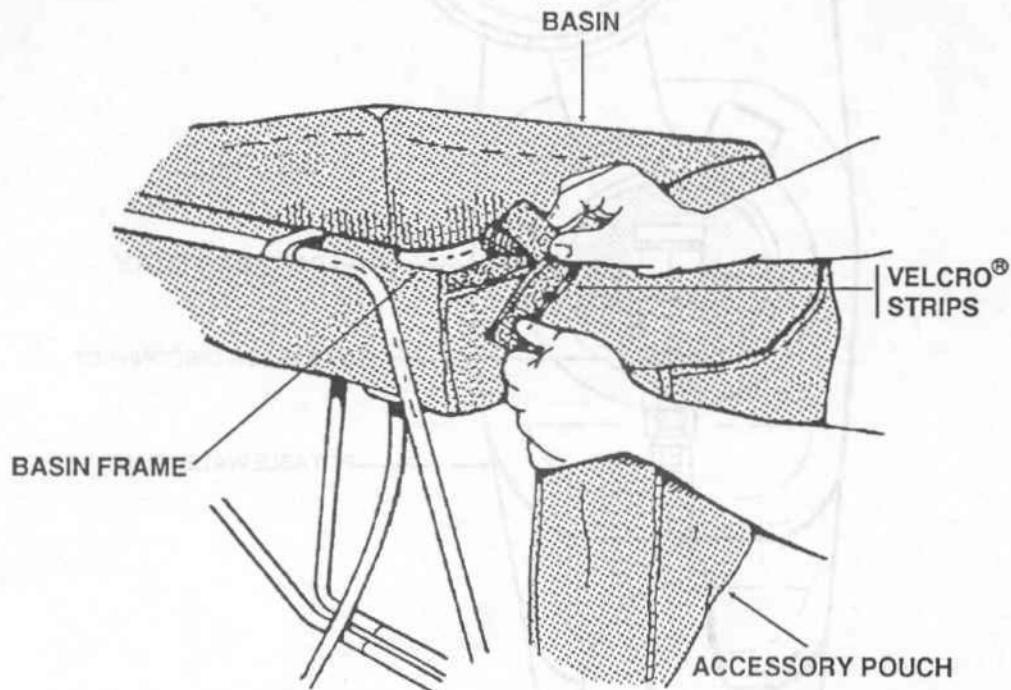


Figure 2-14. Accessory pouches installation.

## Section II. OPERATING CONTROLS

### 2-3. Controls and indicators.

a. *Foot pedal* (fig 2-15). The foot-operated pedal is depressed to turn on the water pump and heater and allows water to be circulated, heated, and pumped out of the faucet. Releasing the pedal turns off the water pump, heater, and water flow from the faucet.

b. *Electrical power switch and ground fault circuit interrupter* (fig 2-15).

(1) The GFCI serves as the electrical power switch and as a safety device in the event of an electrical ground fault. The portable scrub sink is electrically powered by depressing the red button of the GFCI labeled "RESET/ON." The yellow button labeled "TEST/OFF" is depressed to shut off the sink.

(2) The portable scrub sink is tested for an electrical ground fault by depressing and holding the foot pedal while simultaneously depressing the "TEST/OFF" (yellow) button on the GFCI. The "RESET/ON" (red) button should spring out and shut off the unit.

#### **WARNING**

To preclude electrical shock to the user, DO NOT operate the portable scrub sink if the "RESET/ON" (red) button did not spring out when tested. Additionally, the sink should be disconnected from the electrical power source.

c. *Flow control knob* (fig 2-15). The flow control knob is used to adjust the flow of water from various sources. The flow is increased by rotating the knob counterclockwise and decreased by rotating the knob clockwise. This control is normally only used when the portable scrub sink is initially set up for a specific source of water.

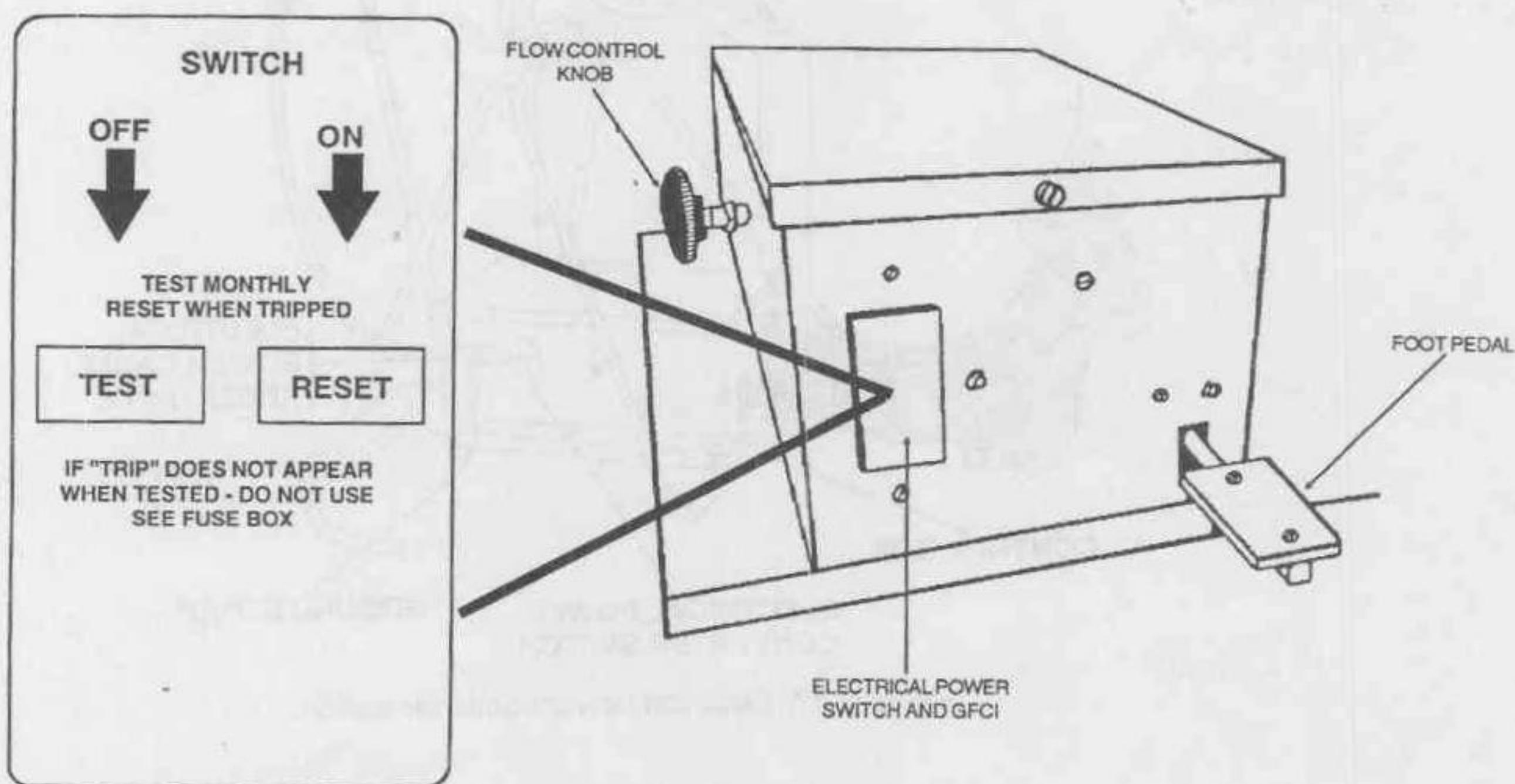


Figure 2-15. Control box components.

d. *Primer bulb* (fig 2-16). The primer bulb is in line with the outlet hose and is used to prime the pump in the control box. Squeezing the bulb several times while depressing the foot pedal draws water from the potable water can through the inlet hose to the control box. The water continues to be drawn through the pump and heater and then through the outlet hose assembly to the faucet. Discontinue priming when air bubbles are no longer visible in the water moving through the outlet hose.

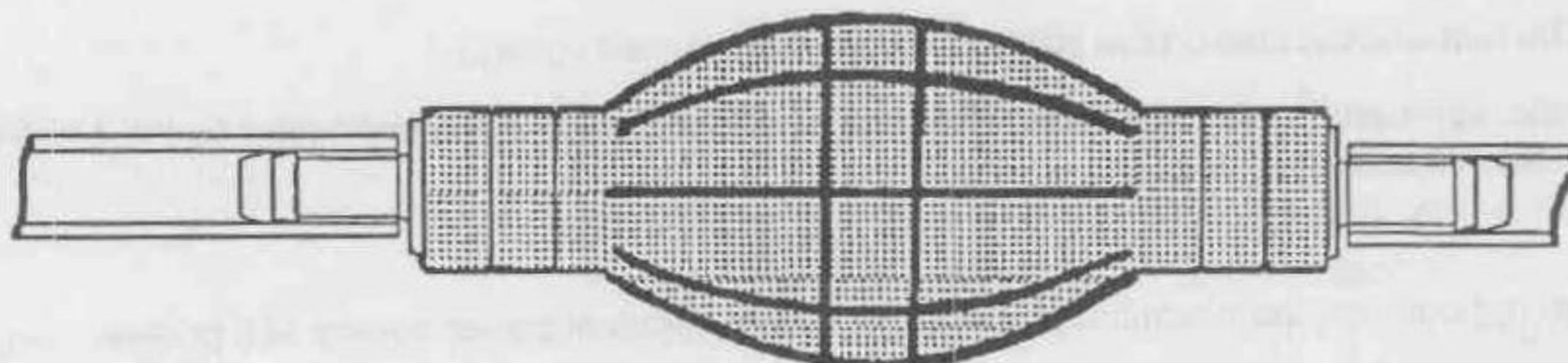


Figure 2-16. Primer bulb

e. *Electrical power converter switch* (fig 2-17). The electrical power converter switch is used to select either 115 volts or 230 volts to match the voltage of the electrical power source.

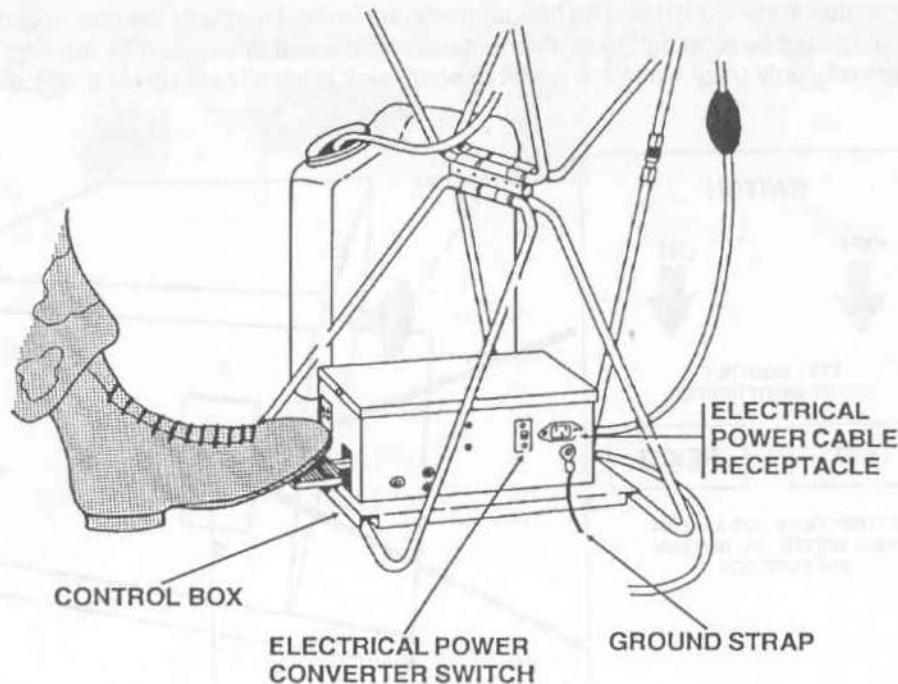


Figure 2-17. Electrical power converter switch.

### Section III. UNIT OPERATION

#### 2-4. Operation from a non-pressurized water source.

- Determine the voltage of the electrical power source.
- Position the electrical power converter switch in the up position for operation on 115 volts or in the down position for 230 volts.

##### NOTE

The numerals visible on the switch indicate the selected voltage.

- Select the appropriate electrical power cable and connect the female connector to the electrical power cable receptacle on the control box.

##### CAUTION

Do not connect the electrical power cable to the electrical power source at this step.

- Attach the electrical ground strap to a grounding rod.

##### WARNING

The portable scrub sink must be connected either to a grounded electrical power system or connected to a grounding rod to preclude either electrical shock or electrocution.

- Acquire potable water. (Refer to para 2-2h.)
- Turn the flow control knob counterclockwise and fully open the valve.
- Depress the foot pedal.

*h.* Squeeze and release the primer bulb until a steady stream of water flows from the faucet and air bubbles are not visible in the outlet hose.

**CAUTION**

Ensure that the electrical power converter switch is in the proper position when operating from either 115 volts or 230 volts.

- i.* Connect the electrical power cable to the source of electrical power.
- j.* Depress the "TEST/OFF" (yellow) button on the GFCI while depressing and holding the foot pedal.
- k.* Depress the "RESET/ON" (red) button on the GFCI.
- l.* Depress the foot pedal and hold down for water flow.

**WARNING**

If the foot pedal remains depressed and the unit is not supplied with water, the heater will continue to operate until its temperature reaches the thermostat cutoff temperature of 122° F (50° C). The subsequent resumption of water flow through the heater may result in the flow of scalding hot water and possible discomfort or burns to the skin.

**NOTE**

Adjust the flow of water by turning the flow control knob clockwise.

**NOTE**

If the end of the inlet hose assembly is pulled out of the potable water or the can is emptied of water, the pump will need to be primed again.

## 2-5. Operation from a pressurized water source.

- a.* Determine the voltage of the electrical power source.
- b.* Position the electrical power converter switch in the up position for operation on 115 volts or in the down position for 230 volts.

**NOTE**

The numerals visible on the switch indicate the selected voltage.

- c.* Select the appropriate electrical power cable and connect the female connector to the electrical power cable receptacle on the control box.

**CAUTION**

Do not connect the electrical power cable to the electrical power source at this step.

- d.* Attach the electrical ground strap to a grounding rod.

**WARNING**

The portable scrub sink must be connected either to a grounded electrical power system or connected to a grounding rod to preclude either electrical shock or electrocution.

- e.* Depress the quick-disconnect collar and remove the adapter assembly from the inlet hose assembly. Install the adapter assembly onto the inlet connector of the control box (fig 2-12). A 3/4 inch water hose can now be connected directly to the control box eliminating the need for a potable water can.

**NOTE**

Return the unused inlet hose assembly to the case to prevent losing it.

f. Turn the flow control knob counterclockwise and fully open the valve.

**CAUTION**

Ensure that the electrical power converter switch is consistent with the available electrical power supply to preclude damage to the unit.

- g. Connect the electrical power cable to the source of electrical power.
- h. Depress the "TEST/OFF" (yellow) button on the GFCI while depressing and holding the foot pedal.
- i. Depress the "RESET/ON" (red) button on the GFCI.
- j. Depress the foot pedal and hold down for water flow.

**WARNING**

If the foot pedal remains depressed and the unit is not supplied with water, the heater will continue to operate until its temperature reaches the thermostat cutoff temperature of 122° F (50° C). The subsequent resumption of water flow through the heater may result in the flow of scalding hot water and possible discomfort or burns to the skin.

**NOTE**

Adjust the flow of water by turning the flow control knob clockwise.

## 2-6. Waste water disposal.

The waste water can should be checked periodically and emptied as required. Ensure that all waste water is disposed of in accordance with the unit waste disposal plan or standing operating procedure (SOP).

## Section IV. OPERATION OF AUXILIARY EQUIPMENT

### 2-7. Associated support items of equipment.

No associated support items of equipment are supplied with or dedicated for support of the portable scrub sink. Potable water is required for the operation of other equipment and for personnel use and consumption. Electrical power supplied by generators is required for numerous items of equipment.

### 2-8. Associated material.

The water cans mentioned throughout this manual are not components of the portable scrub sink. Refer to appendix F for additional information.

## Section V. OPERATION UNDER UNUSUAL CONDITIONS

### 2-9. Low environmental temperatures.

a. The efficiency of the portable scrub sink to heat water and the prevention of damage to the unit during low environmental temperatures can be accomplished by following the subsequent procedures.

- (1) Remove the outlet hose from the faucet and place the end of the hose into the potable water can.
- (2) Turn the flow control knob fully counterclockwise.
- (3) Depress the foot pedal for approximately 15 minutes to allow the water to circulate and preheat.
- (4) Reconnect the outlet hose to the faucet.
- (5) Proceed with normal operation.

*b.* The portable scrub sink must be shut down and drained when the outside temperature is 35°F (5°C) or below and the sink is located in an unheated environment.

**CAUTION**

The water preheating procedures in the preceding paragraph may allow continued use of the unit. However, extreme care must be exercised to preclude freezing and damage to the unit.

**2-10. Loss of electrical power.**

The portable scrub sink is designed to operate without electrical power. Simply position the potable water can above the level of the faucet and depress the foot pedal.

# CHAPTER 3

## UNIT LEVEL MAINTENANCE

---

### Section I. GENERAL INFORMATION

#### 3-1. Overview.

Maintenance functions, both preventive and corrective, that are beyond the scope of the user are assigned to unit level medical equipment repairer personnel. These personnel will perform the majority of maintenance required for the portable scrub sink except for some tasks involving the control box, GFCI, and frame assembly. This chapter provides instructions and information to aid in performing the required tasks.

#### 3-2. Tools and test equipment.

Common tools and test equipment required for maintenance of the portable scrub sink are listed in appendix B, section III of this manual. Refer to your unit's modified table of organization and equipment (MTOE) for authorized items.

#### 3-3. Components of end item and basic issue items.

Components of end item and basic issue items are listed in appendix C, sections II and III of this manual.

#### 3-4. Expendable supplies.

Expendable and durable supplies and materials required for maintenance of the portable scrub sink are listed in appendix D, section II of this manual.

#### 3-5. Repair parts.

Repair parts required for unit level maintenance are listed in appendix E, section II of this manual.

#### 3-6. Special tools.

Special tools required for maintenance of the portable scrub sink are listed in appendix E, section III of this manual.

#### 3-7. Additional authorization list items.

Additional items required for operation of the portable scrub sink are identified in appendix F, section II of this manual.

### Section II. SERVICE UPON RECEIPT OF EQUIPMENT

#### 3-8. Unpack and assemble the unit.

- a. Unpack the unit by following the procedures in paragraph 2-1.
- b. Assemble the unit by following the procedures and illustrations in paragraph 2-2.

### 3-9. Test the unit.

- a. Operate the unit by following the procedures in paragraphs 2-4 and 2-5.
- b. Perform a visual inspection to detect any damage which may have occurred during shipment or storage.
- c. Check the operation of the flow control valve by turning the knob in both directions.
- d. Check the water temperature. (Refer to table 1-4.)
- e. Perform a thorough inspection for leaks.
- f. Test the GFCI by following the procedures in paragraph 2-3b.
- g. Report damage and/or discrepancies in components or operation in accordance with established procedures.

## Section III. LUBRICATION INSTRUCTIONS

### 3-10. General.

No lubrication of the portable scrub sink is required.

## Section IV. PREVENTIVE MAINTENANCE CHECKS AND SERVICES

### NOTE

The PMCS chart in this section contains all necessary unit level services for the unit.

### 3-11. General.

a. The portable scrub sink must be inspected and serviced systematically to ensure that the unit is ready for operation at all times. Inspection will allow defects to be discovered and corrected before they result in serious damage or failure. Table 3-1 contains a list of PMCS items to be performed by unit personnel.

b. Preventive maintenance is not limited to performing the checks and services listed in the PMCS table. There are things you should do any time you see they need to be done, such as checking for general cleanliness, observing for improper operational indicators, and maintaining the proper quantities of operating supplies.

c. The following is a list of the PMCS table column headings with a description of the information found in each column:

(1) *Item No.* This column shows the sequence in which to do the PMCS, and is used to identify the equipment area on the Equipment Inspection and Maintenance Worksheet, DA Form 2404.

(2) *Interval.* This column shows when each PMCS item is to be serviced; B - Before Operation, D - During Operation, A - After Operation, and S - Semi-annually. B, D, and A should be performed with daily use of the unit.

### NOTE

When the equipment must be kept in continuous operation, check and service only those items that will not disrupt operation. Perform the complete daily checks and services when the equipment can be shut down.

(3) *Item to be Inspected and Procedure.* This column identifies the general area or specific part to be checked or serviced.

(4) *Equipment is not Ready/Available If:* This column lists conditions that make the equipment unavailable or unusable.

Table 3-1. Preventive maintenance checks and services.

ITEM NO	INTERVAL				ITEM TO BE INSPECTED AND PROCEDURE	EQUIPMENT IS NOT READY/AVAILABLE IF:
	B	D	A	S		
1.	X	X		X	BASIN. a. Visually check for rips, tears, or holes in fabric. b. Check VELCRO® strips for damage and gripping ability.	Leaks occur. VELCRO® strips will not hold the basin onto the frame.
2.	X			X	CONVENIENCE TRAY. a. Visually check the bracket on the underside for damage. b. Check the thumbscrew by turning both clockwise and counterclockwise.	Bracket is missing or damaged. Thumbscrew is missing or fails to hold the faucet securely.
3.	X	X		X	FAUCET. Visually check for dents or other signs of damage or leaks.	Faucet cannot be installed or it leaks.
4.	X			X	FRAME ASSEMBLY AND BASIN FRAME. Visually check for dents, cracks, corrosion, and missing or broken parts.	Damage interferes with assembly or operation.
5.	X			X	SUPPORT RODS. Visually check for functional couplings.	Couplings inoperable or rods missing.
6.	X	X		X	CONTROL BOX. Visually check for dents, cracks, corrosion, missing or broken parts (flow control knob, switches, and foot pedal), and leaks.	Damage interferes with assembly or operation.
7.	X	X	X	X	ELECTRICAL POWER CABLES. Visually inspect for signs of damage or excessive wear.	Cables missing or damaged.
8.	X	X		X	HOSE ASSEMBLIES. Check for signs of damage, excessive wear, or leaks.	Damage or excessive wear precludes assembly or leaks interfere with operation.
9.	X			X	GFCI. Test for correct operation.	GFCI does not "trip" when tested or will not reset.
10.	X			X	FLOW CONTROL VALVE. Check the valve for leaks and rotation in both directions.	Damaged, leaking, or inoperable.
11.	X			X	PRIMER BULB. Check for signs of deterioration, cracks, or missing connectors.	Inoperable or missing.
12.	X			X	ELECTRICAL POWER CONVERTER SWITCH. Check for the correct operation.	Damaged or inoperable.

### 3-12. Reporting deficiencies.

If operator personnel discover problems with the equipment during PMCS that they are unable to correct, they must report them. Refer to TB 38-750-2 and report the deficiency using the proper forms. Consult with your unit level medical equipment repairer if you need assistance.

## Section V. TROUBLESHOOTING

### 3-13. General.

- a. Specific troubleshooting information for locating and correcting many of the operating malfunctions which may develop in the portable scrub sink is located in table 3-2. Symptoms are provided for common malfunctions. Each symptom is following by possible causes and corrective actions.
- b. This manual cannot list all possible malfunctions. If a malfunction is not listed or is not determined by routine diagnostic procedures, notify your appropriate maintenance support unit.

**Table 3-2. General troubleshooting.**

SYMPTOM	POSSIBLE CAUSE	CORRECTIVE ACTION
<b>1. PUMP WILL NOT PRIME.</b>		
	Inlet hose assembly not at the bottom of the potable water can or the can is empty.	
	Check the location of the inlet hose assembly and reposition it as required or fill the can with water.	
	Foot pedal not depressed.	
	Depress foot pedal or repair it as required.	
	Hose assemblies are kinked or twisted.	
	Check hose assemblies and correct kinks or twists. Replace hoses when required.	
	Flow control valve closed.	
	Open the flow control valve.	
	Primer bulb defective.	
	Replace bulb.	
	Water circuit clogged by debris or mineral deposits.	
	Check and clean hose assemblies, pump, flow control valve, foot pedal assembly, and faucet.	
<b>2. NO WATER FLOW FROM FAUCET.</b>		
	Pump does not operate.	
	Replace pump.	
	No electrical power from electrical distribution system.	
	Troubleshoot electrical distribution system.	
<b>WARNING</b>		
<p>Only trained medical equipment repairer personnel should open the control box.</p> <p>Electrical voltage is present on components inside the control box when the portable scrub sink is connected to a source of electrical power. Exercise the proper safety procedures to preclude electrical shock, injury, or electrocution.</p>		
<p>No electrical power at electrical power converter switch.</p> <p>Check for open circuit in electrical power cable, control box receptacle, or an open fuse. Repair as required or replace fuse.</p>		
<p>No electrical power to GFCI.</p> <p>Check for defective wiring or electrical power converter switch and repair wiring or replace the switch.</p>		
<p>No electrical power to pump.</p> <p>Check GFCI and reset, if required, or replace the GFCI.</p>		
<p>Incorrect voltage to unit.</p>		

**Table 3-2. General troubleshooting - continued.**

Set electrical power converter switch to proper position.

Flow control valve closed.

Open valve.

Hose assemblies kinked or clogged.

Check hose assemblies, straighten kinks or twists, or replace hoses.

### 3. WATER NOT HEATED.

Electrical power converter switch in wrong position.

Correct switch position.

Foot pedal microswitch out of adjustment or defective.

Check for correct electrical and/or mechanical operation and adjust as required or replace the microswitch.

Heater circuitry open or the heater is defective.

Check the circuitry and the heater for the proper voltage. Replace the heater as required.

#### 4. GFCI ACTIVATES (FAILS TO RESET).

Incorrect electrical power source.

Check voltage and initiate corrective action if incorrect.

Short circuit or excessive leakage current.

Troubleshoot the total electrical circuit of the unit and repair as required or replace the defective GFCI.

c. Three illustrations (fig 3-1 through fig 3-3) are provided to assist in the preceding general troubleshooting table and for additional detailed troubleshooting procedures as required.

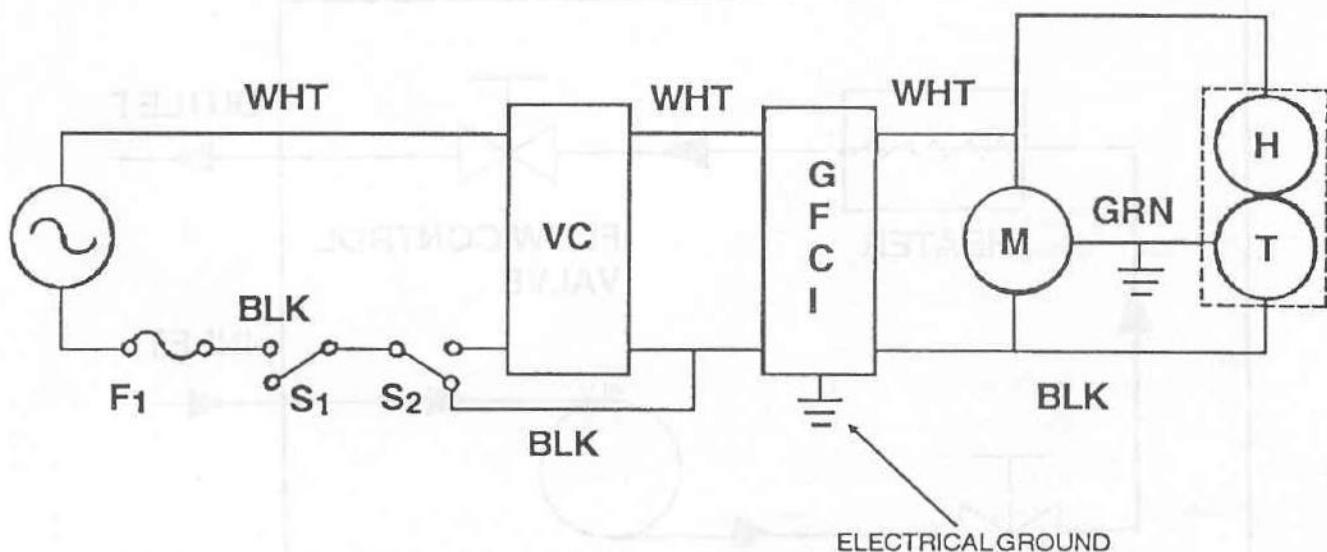


Figure 3-1. Electrical schematic.

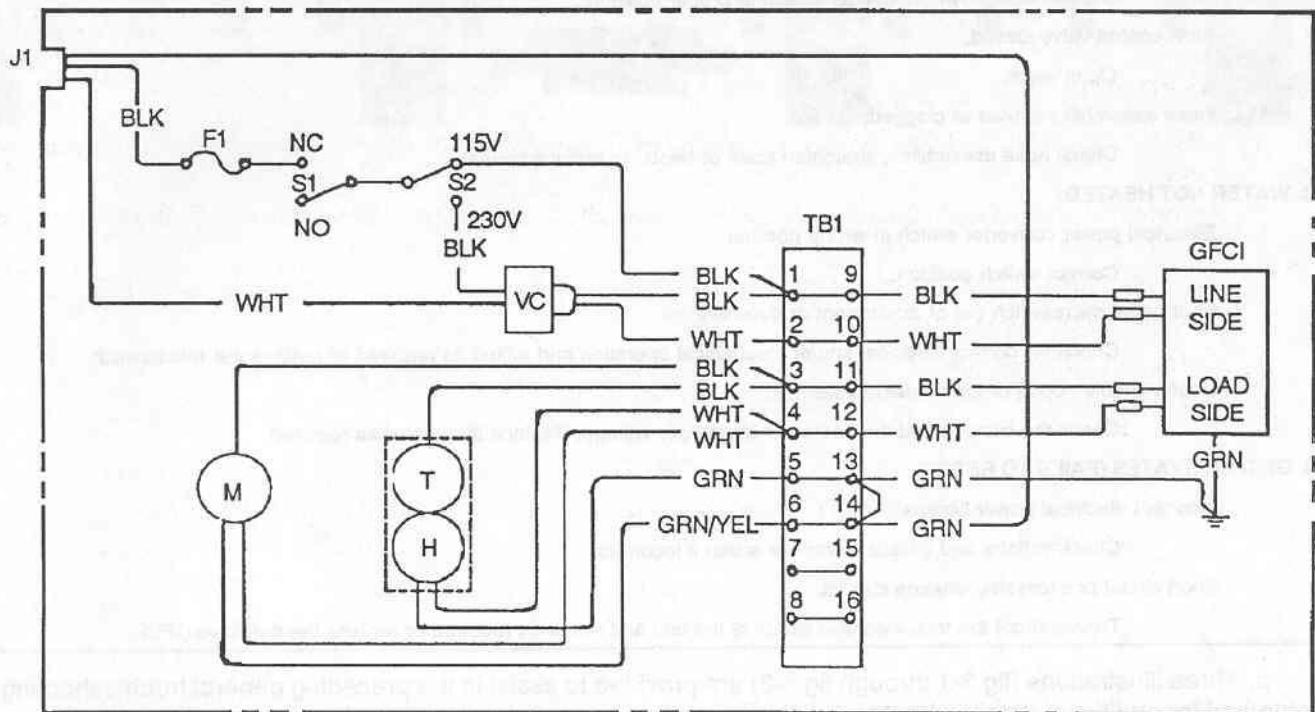


Figure 3-2. Electrical wiring diagram.

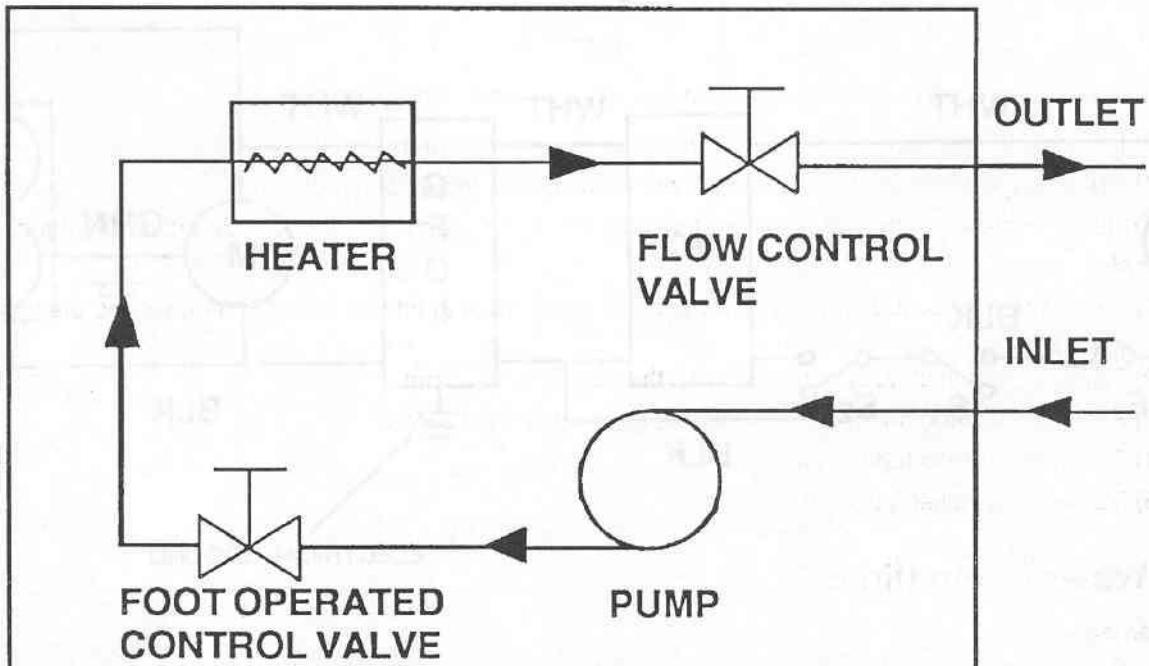


Figure 3-3. Control box water flow diagram.

## Section VI. MAINTENANCE INSTRUCTIONS

### 3-14. General.

- a. This section of the manual contains procedures for the repair of defective assemblies, modules, or components.
- b. The removal and replacement procedures for paragraphs 3-15 through 3-27 require several common steps to include the following:
  - (1) Loosen the two slotted screws fastening the control box cover.
  - (2) Remove and replace the cover.
  - (3) Tighten the two slotted screws to fasten the cover.
  - (4) Test the unit.

**NOTE**

DO NOT completely remove the two screws as the cover is slotted to ease removal and replacement.

**NOTE**

All pipe threads should be sealed with antiseizing tape.

### 3-15. Flow control valve (fig E-1).

a. Removal.

- (1) Remove the outlet quick-disconnect on the outside of the control box.
- (2) Unthread the brass tubing nut on the copper tubing.

**NOTE**

DO NOT remove the copper tubing until a subsequent step.

- (3) Loosen the allen screw in the flow control knob and remove the knob.
- (4) Remove the 15/16 inch hex nut and then remove the 1-inch tubing nut.
- (5) Remove the valve by lifting upward and out to allow the copper tubing to slide out of the fitting.

b. Replacement.

- (1) Install the flow control valve by inserting the copper tubing into its fitting while lowering the valve into place.
- (2) Replace the 1-inch tubing nut and then the 15/16 inch hex nut.
- (3) Replace the knob on the valve shaft and tighten the allen screw.
- (4) Tighten the brass tubing nut.
- (5) Replace the outlet quick-disconnect.

### 3-16. Water pump (fig E-2).

a. Removal.

- (1) Remove the inlet quick-disconnect on the outside of the control box.
- (2) Remove the 1-inch tubing nut and withdraw the clear plastic tubing from the fitting.
- (3) Disconnect the electrical power cable from the terminal strip.
- (4) Remove the two screws and hex nuts at the base of the pump.

- (5) Remove the pump.
- (6) Remove the outlet fitting and set it aside.

*b. Replacement.*

- (1) Install the outlet fitting from the preceding removal step (6) on the RX (reparable exchange) or new pump.
- (2) Insert the pump and replace the two screws and hex nuts at the base of the pump.
- (3) Connect the electrical cable to the power strip.
- (4) Insert the clear plastic tubing into the fitting and replace the 1-inch tubing nut.
- (5) Replace the inlet quick-disconnect.

### **3-17. Water heater (fig E-3).**

*a. Removal.*

- (1) Unplug the special electrical connector with the incorporated thermostat from the top of the heater.
- (2) Unthread the 9/16 inch tubing nuts on the inlet and outlet sides of the heater.
- (3) Remove the two screws and hex nuts on the heater mounting brackets.
- (4) Remove the two heater brackets.
- (5) Remove the two hose clamps from the heater body.
- (6) Remove the thermal blanket.
- (7) Remove the heater.

*b. Replacement.* Reverse the operation of the preceding removal steps 7 through 1 to reassemble the water heater into the control box.

### **3-18. Ground fault circuit interrupter (fig E-1).**

*a. Removal.*

- (1) Remove the electrical connections on the GFCI.
- (2) Remove the two retaining screws.
- (3) Remove the GFCI.

*b. Replacement.* Reverse the operation of the preceding removal steps 3 through 1 to replace the GFCI.

### **3-19. Heater thermostat.**

*a. Removal.*

- (1) Unplug the special electrical connector containing the thermostat from the heater.
- (2) Pull out the thermostat (the round metal object on the underside of the special connector).

*b. Replacement.*

- (1) Press a new thermostat into the special connector.
- (2) Plug the connector back into the heater.

### **3-20. Heater power cable (fig E-4).**

*a. Removal.*

- (1) Unplug the special electrical connector from the heater.
- (2) Disconnect the three wires at the other end of the connector from the electrical terminal strip.

*b. Replacement.*

- (1) Connect the three wires from a new special electrical connector to the terminal strip.

**WARNING**

Ensure that the green colored wire is connected to the correct terminal position to preclude damage to the unit or electrical shock to personnel.

- (2) Plug the connector back into the heater.

### **3-21. Fuseholder (fig E-1).**

*a. Removal.*

- (1) Remove the electrical connectors from the fuseholder.
- (2) Remove the fuse.
- (3) Remove the rivet and washer.
- (4) Remove the fuseholder.

*b. Replacement.* Reverse the operation of the preceding removal steps 4 through 1 to install a replacement fuseholder.

### **3-22. Foot pedal assembly (fig E-4).**

*a. Removal.*

- (1) Loosen and remove the 1-inch tubing nut and the clear plastic tubing.
- (2) Loosen the 9/16 inch tubing nut.

**NOTE**

DO NOT remove the copper tubing until a subsequent step.

- (3) Remove the two screws from the foot pedal.
- (4) Remove the three screws and washers holding the foot control bracket located on the lower right front side of the control box.
- (5) Remove the valve.
- (6) Remove the foot pedal arm.
- (7) Remove the spring pin securing the foot pedal arm to the valve.
- (8) Remove the lock nut securing the foot pedal arm bracket.

*b. Replacement.* Reverse the operation of the preceding removal steps 8 through 1 to reassemble and replace the foot pedal assembly into the control box.

### **3-23. Foot pedal assembly microswitch.**

*a. Removal.*

- (1) Disconnect the electrical wires from the microswitch.
- (2) Remove the two mounting screws and hex nuts.
- (3) Remove the microswitch.

*b. Replacement.*

- (1) Install a replacement microswitch by replacing the two mounting screws and hex nuts.
- (2) Connect the electrical wires.

### 3-24. Voltage converter (fig E-1).

#### a. Removal.

- (1) Disconnect the wires from the voltage converter.
- (2) Place a thumb over the plastic housing and pull until the plastic housing is free. Remove the converter.

#### b. Replacement.

- (1) Install a new voltage converter.
- (2) Connect the wires to the converter.

#### NOTE

Ensure that the two plastic clips to secure the plastic housing are engaged.

### 3-25. Electrical power converter switch. (fig E-1).

#### a. Removal.

- (1) Loosen the soldered electrical wires from the switch.
- (2) Remove the two retaining screws and hex nuts.
- (3) Remove the switch.

*b. Replacement.* Reverse the operation of the preceding removal steps 3 through 1 to replace the electrical power converter switch.

### 3-26. Electrical power receptacle (fig E-1).

#### a. Removal.

- (1) Remove the soldered electrical wires from the receptacle.
- (2) Remove the two retaining screws and hex nuts.
- (3) Remove the receptacle.

*b. Replacement.* Reverse the operation of the preceding removal steps 3 through 1 to replace the receptacle.

### 3-27. Water pump impeller (fig E-2).

#### a. Removal.

- (1) Remove the water pump by following the procedures in paragraph 3-16a.
- (2) Remove the five impeller cover retaining screws.
- (3) Remove the pump housing and the plug assembly.
- (4) Inspect, clean, or replace worn or damaged components.

*b. Replacement.* Reverse the operation of the preceding removal steps 4 through 2 and then continue the replacement action by following the procedures in paragraph 3-16b.

### 3-28. Frame assembly (fig E-9).

#### a. Removal.

- (1) Remove the two allen screws.
- (2) Remove the five screws from the hinge.
- (3) Remove the unserviceable leg(s).

*b. Replacement.* Reverse the operation of the preceding removal steps 3 through 1 to replace components and reassemble the frame assembly.

### 3-29. Quick-disconnect (fig E-6 and fig E-7).

- Removal. Unscrew the unserviceable quick-disconnect from the control box, support rod or hose assembly.
- Installation. Install a replacement quick-disconnect.

#### NOTE

If a replacement quick-disconnect is not available, remove the mating quick-disconnect and hose barb from the hose assembly. Then connect the hose directly to a hose barb installed on the control box or hose assembly.

### 3-30. Case gasket.

- Removal.
  - Remove the unserviceable gasket.
  - Clean the groove with a mild solvent.
- Installation.
  - Remove the protective backing from a new gasket.
  - Install the gasket into the groove.

### 3-31. Case latches.

- Removal.
  - Peel the sealing material from the pop rivets on the unserviceable twist-lock latch.
  - Drill out the pop rivets using a 1/8 inch drill bit. Drill from inside the case.
  - Remove the latch.
- Replacement.
  - Install a new latch by fastening with pop rivets and washers.
  - Coat the rivets on the interior of the case with sealing material.

### 3-32. Case handles.

- Removal.
  - Peel the sealing material from the pop rivets on the unserviceable handle.
  - Drill out the pop rivets using a 3/16 inch drill bit. Drill from the outside of the case.
  - Remove the handle and retain the back plate.
- Replacement.
  - Install a handle by using the back plate from the unserviceable handle and pop riveting it in place.
  - Coat the rivets on the interior of the case with sealing material.

### 3-33. Air relief valve.

- Removal.
  - Remove the hex nut from the rear of the air relief valve (inside the case).
  - Remove the air relief valve.
- Installation. Insert a replacement valve and tighten the hex nut.

## Section VII. CLEANING PROCEDURES

### 3-34. Operator/user tasks.

- a. Clean the fabric basin, the basin mat, and the accessory pouches using a scrub brush and water.
- b. Rinse and dry thoroughly the above components with a clean cloth.
- c. Wipe all other surfaces with a clean cloth.

## Section VIII. STORAGE AND SHIPMENT PROCEDURES

### 3-35. Preparation for storage or shipment.

This section contains the procedures for preparing the portable scrub sink for storage or shipment within its case and crating it for commercial transportation. Upon disassembly, place the sink components alongside the case for subsequent cleaning and packing.

#### a. Disassembling the unit.

- (1) Disconnect the electrical power cable from the source of electrical power and the control box receptacle.
- (2) Remove the inlet hose assembly from its connection on the control box and from inside the water can.

#### NOTE

If operating from a pressurized water supply, turn off the water supply and disconnect the distribution hose from the adapter assembly installed on the control box. Then, disconnect the adapter from the inlet connector on the control box. The adapter should be installed back onto the inlet hose assembly to prevent loss.

- (3) Disconnect the drain hose from the basin.
- (4) Disconnect the outlet hose assembly from the faucet and the control box.
- (5) Loosen the thumbscrew in the convenience tray bracket and remove the faucet.
- (6) Rotate the upper support rod 1/2 turn clockwise and while depressing the knurled collar on the lower support rod, separate the quick-disconnect coupling holding the two support rods together.
- (7) Hold the convenience tray and unscrew the upper support rod from the tray bracket.
- (8) Remove the convenience tray by pulling the bracket outward from the basin frame.
- (9) Remove the black rubber basin mat.
- (10) Remove the two accessory pouches.

#### NOTE

The VELCRO® strips holding the basin to its frame should be fastened after removing the accessory pouches.

- (11) Remove the basin assembly from the frame assembly by moving the upper legs inward and detaching the four basin frame hooks.

- (12) Detach the control box from the lower legs by reversing the operation depicted in figure 2-5.

#### NOTE

Lift the foot pedal end of the control box and depress the foot pedal to allow any residual water to drain from the control box.

- (13) Fold the frame assembly by pushing the lower legs together and then lowering the upper legs in a downward arc until the frame assembly is collapsed. (Refer to fig 2-4.)

*b. Cleaning.*

(1) Perform the cleaning procedures contained in paragraph 3-34.

(2) Allow the portable scrub sink components to thoroughly dry before packing the unit into its case.

*c. Packing.*

(1) Place the case alongside the portable scrub sink components to ease packing.

(2) Depress the air relief valve on the front of the case to release any pressure.

(3) Unfasten the 12 twist-lock latches and remove the lid of the case.

(4) Review figures 2-1 through 2-3 to refresh your knowledge of the component locations when repacking the case.

(5) Place the faucet, the upper and lower support rods, and the electrical power cable into their proper locations and twist the rotating latches to fasten the components.

(6) Place the frame assembly into the case and secure it by fastening the VELCRO® strips.

(7) Invert the control box and place it in the center of the lower case with the foot pedal to the rear.

(8) Wrap the hose assemblies and the drain hose around the control box.

(9) Place the manuals on top of the control box.

(10) Place the black rubber basin mat on top of the manuals.

(11) Place the accessory pouches and the spare components in the compartment in the cover of the case.

(12) Invert the basin assembly and place it in the compartment. Close and fasten the compartment using the VELCRO® strips.

(13) Close the case and fasten the 12 twist-lock latches.

*d. Shipping procedures.* No special shipping procedures are required for unit movements. Crating is required for commercial transportation and/or long-term storage.

# CHAPTER 4

## DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE

---

### Section I. GENERAL INFORMATION

#### 4-1. Overview.

This chapter provides for maintenance that is beyond the capability, capacity, and authorization for unit level maintenance personnel. The procedures in this chapter should not be attempted at the unit level.

#### 4-2. Support maintenance services.

Specified components or assemblies identified in appendix B, section II, are only authorized for servicing by DS and GS maintenance units.

### Section II. TROUBLESHOOTING

#### 4-3. General.

There are no specific troubleshooting procedures at these levels of maintenance.

## APPENDIX A

### REFERENCES

---

#### A-1. Army regulations.

AR 40-61	Medical Logistics Policies and Procedures
AR 710-2	Supply Policy Below the Wholesale Level
AR 725-50	Requisitioning, Receipt, and Issue System
AR 750-1	Army Materiel Maintenance Policy and Retail Maintenance Operations
AR 750-43	Test, Measurement, and Diagnostic Equipment Program

#### A-2. Technical manual.

TM-DPSC-6500-RPL	Medical Materiel: Medical Repair Parts Reference List
------------------	---

#### A-3. Technical bulletins.

TB 38-750-2	Maintenance Management Procedures for Medical Equipment
TB 43-180	Calibration and Repair Requirements for the Maintenance of Army Materiel
TB 740-10/DLAM 4155.5/AFR 67-43	Quality Control, Depot Storage Standards, Appendix M, Medical Supplies
TB 750-8-1	Maintenance Expenditure Limits for Medical Materiel: FSC Groups (Medical Only)

#### A-4. Field manual.

FM 21-11	First Aid for Soldiers
----------	------------------------

#### A-5. Supply bulletins.

SB 700-20	Army Adopted/Other Items Selected for Authorization/List of Reportable Items
SB 708-48	Cataloging Handbook H4/H8, Commercial and Government Entity (CAGE) Sections A & B

#### A-6. Other publications.

(This publication may be obtained from Commander, U.S. Army Medical Materiel Agency, ATTN: SGMMA-M, Frederick, MD 21702-5001.)

Operator's, Organizational, Maintenance Manual, Associated Tool Co., Inc.

# APPENDIX B

## MAINTENANCE ALLOCATION CHART

### Section I. INTRODUCTION

#### **B-1. General.**

- a. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance levels.
- b. Section II designates overall responsibility for the performance of maintenance functions on the identified end item or component. The implementation of the maintenance functions upon the end item or component will be consistent with the assigned maintenance levels.
- c. Section III lists the tools and test equipment required for each maintenance function as referenced from Section II.
- d. Section IV contains supplemental instructions, explanatory notes, and/or illustrations required for a particular maintenance function.

#### **B-2. Explanation of columns in section II.**

- a. *Group Number, Column 1.* The assembly group number (Group No.) column is a numerical group assigned to each assembly. The applicable assembly groups are listed in the maintenance allocation chart (MAC) in disassembly sequence beginning with the first assembly removed in a top down disassembly sequence.
- b. *Assembly Group, Column 2.* This column contains a brief description of the components of each assembly group.
- c. *Maintenance Functions, Column 3.* This column lists the various maintenance functions (A through K) and indicates the lowest maintenance level authorized to perform these functions. The symbol designations for the various maintenance levels are as follows:

- C - Operator or crew
- O - Unit maintenance
- F - Direct support maintenance
- H - General support maintenance
- D - Depot maintenance

The maintenance functions are defined as follows:

- A - Inspect. To determine serviceability of an item by comparing its physical, mechanical, and electrical characteristics with established standards.
- B - Test. To verify serviceability and to detect electrical or mechanical failure by use of test equipment.
- C - Service. To clean, to preserve, to charge, and to add lubricants, cooling agents, and air. If it is desired that elements, such as painting and lubricating, be defined separately, they may be so listed.
- D - Adjust. To rectify to the extent necessary to bring into proper operating range.
- E - Align. To adjust specified variable elements of an item to bring it to optimum performance.
- F - Calibrate. To determine the corrections to be made in the readings of instruments or test equipment used in precise measurement. Consists of the comparison of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared with the certified standard.
- G - Install. To set for use in an operational environment such as tents or International Standards Organization shelters.

H - Replace. To replace unserviceable items with serviceable like items.

I - Repair. Those maintenance operations necessary to restore an item to serviceable condition through correction of material damage to a specific failure. Repair may be accomplished at each level of maintenance.

J - Overhaul. Normally the highest degree of maintenance performed by the Army in order to minimize time work in process consistent with quality and economy of operation. It consists of that maintenance necessary to restore an item to completely serviceable condition as prescribed by a maintenance standard in technical publications for each item of equipment. Overhaul normally does not return an item to like new condition.

K - Rebuild. The highest degree of material maintenance. It consists of restoring equipment as nearly as possible to new condition in accordance with original manufacturing standards. Rebuild is performed only when required by operational considerations or other paramount factors and then only at the depot maintenance level.

*d. Tools and Equipment, Column 4.* This column is provided for referencing by code, the tools and test equipment (sec III) required to perform the maintenance functions.

*e. Remarks, Column 5.* This column is provided for referencing by code, the remarks (sec IV) pertinent to the maintenance functions.

### B-3. Explanation of columns in section III.

*a. Reference Code, Column 1.* This column correlates to section II, column 4.

*b. Maintenance Level, Column 2.* This column identifies the maintenance levels using the tools and test equipment.

*c. Nomenclature, Column 3.* This column identifies the tools and test equipment.

*d. National Stock Number, Column 4.* This column provides the national stock number (NSN) of the specific tools or test equipment.

### B-4. Explanation of columns in section IV.

*a. Reference Code, Column 1.* This column correlates to section II, column 5.

*b. Remarks, Column 2.* This column provides supplemental information or explanatory notes pertinent to the maintenance function in section II.

**Section II. MAINTENANCE ALLOCATION CHART  
FOR  
PORTABLE SCRUB SINK**

(1) GROUP NO.	(2) ASSEMBLY GROUP	(3) MAINTENANCE FUNCTIONS											(4) TOOLS AND EQUIPMENT	(5) REMARKS
		A	B	C	D	E	F	G	H	I	J	K		
00	Portable Scrub Sink	O 0.5	O 0.4	O 0.3							F 4.0	D 5.5	01,02,03, 04,05	CODE A,B
01	Control Box												01,02,03, 04,05	CODE A,B
	Foot Pedal Assembly													
	Foot Pedal Pad									O 0.1				
	Foot Pedal Arm					O 0.2				O 0.3	O 0.2			
	Microswitch									O 0.4				
	Plumbing Connections	O 0.1								O 0.4	O 0.3			
	Voltage Converter		O 0.1							O 0.2				
	Pump Assembly													
	Motor		O 0.2							O 0.4	F 1.0	F 1.6	D 2.0	
	Impeller		O 0.2							O 0.4				
	Plumbing Connections	O 0.1								O 0.4	O 0.3			
	Heater Assembly													
	Plumbing Connections	O 0.1								O 0.4	O 0.3			

**Section II. MAINTENANCE ALLOCATION CHART  
FOR  
PORTABLE SCRUB SINK**

(1) GROUP NO.	(2) ASSEMBLY GROUP	(3) MAINTENANCE FUNCTIONS										(4) TOOLS AND EQUIPMENT	(5) REMARKS	
		A	B	C	D	E	F	G	H	I	J	K		
	Thermostat		O 0.2						O 0.2					
	Electrical Cable		O 0.1						O 0.2	O 0.3				
	Ground Fault Circuit Interrupter		O 0.1						O 0.2	O 0.3				
	Fuse		O 0.1						O 0.1					
	Fuseholder		O 0.1						O 0.2					
	Receptacle, Electrical Power Cable		O 0.1						O 0.2					
	Switch, Electrical Power Converter		O 0.1						O 0.2					
	Flow Control Assembly													
	Knob		O 0.1						O 0.1					
	Valve			O 0.2					O 0.3	O 0.2				
	Plumbing Connections		O 0.1						O 0.4	O 0.3				
	Inlet Quick- disconnect		O 0.1						O 0.1					
	O-ring		O 0.1						O 0.1					

**Section II. MAINTENANCE ALLOCATION CHART  
FOR  
PORTABLE SCRUB SINK**

(1) GROUP NO.	(2) ASSEMBLY GROUP	(3) MAINTENANCE FUNCTIONS										(4) TOOLS AND EQUIPMENT	(5) REMARKS	
		A	B	C	D	E	F	G	H	I	J	K		
	Outlet Quick- disconnect	O 0.1							O 0.1					
02	Drain Hose	O 0.1							O 0.1				01	CODE A
03	Inlet Hose Assembly												01,02	CODE A
	Adapter Assembly	O 0.1							O 0.2					
	Quick-disconnect	O 0.1							O 0.2					
	Tubing	O 0.1							O 0.3					
04	Outlet Hose Assembly												01,02	CODE A
	Quick-disconnect	O 0.1							O 0.2					
	Tubing	O 0.1							O 0.3					
	Primer Bulb	O 0.1							O 0.2					
05	Electrical Power Cables		O 0.1						O 0.1	O 0.3			01,02,04	CODE A,B
06	Convenience Tray	O 0.1							O 0.2				01,02	CODE A
	Bracket	O 0.1							O 0.2					

**Section II. MAINTENANCE ALLOCATION CHART  
FOR  
PORTABLE SCRUB SINK**

(1) GROUP NO.	(2) ASSEMBLY GROUP	(3) MAINTENANCE FUNCTIONS										(4) TOOLS AND EQUIPMENT	(5) REMARKS	
		A	B	C	D	E	F	G	H	I	J	K		
07	Frame Assembly	O 0.1							O 0.4	O 0.5			01,02,03	CODE A
08	Faucet	O 0.1							O 0.1				01	CODE A
09	Support Rods	O 0.1							O 0.1	O 0.3			01,02,03	CODE A
10	Basin Assembly												01,02,03	CODE A
	Mat	O 0.1							O 0.1					
	Accessory Pouches	O 0.1							O 0.2					
	Frame	O 0.1							O 0.1	O 0.2				
	Basin	O 0.2							O 0.3	O 0.5				
	Drain	O 0.1							O 0.1					
11	Case												01,02,03	CODE A
	Handles	O 0.1							O 0.5					
	Latches	O 0.2							O 1.0					
	Gasket	O 0.1							O 0.3					
	Air Relief Valve	O 0.1							O 0.1	O 0.1				

**Section II. MAINTENANCE ALLOCATION CHART  
FOR  
PORTABLE SCRUB SINK**

(1) GROUP NO.	(2) ASSEMBLY GROUP	(3) MAINTENANCE FUNCTIONS										(4) TOOLS AND EQUIPMENT	(5) REMARKS	
		A	B	C	D	E	F	G	H	I	J	K		
12	Grounding Strap												01,02,03	CODE A
	Clip, Electrical	O 0.1							O 0.3					
	Braid	O 0.1							O 0.4					

**Section III. TOOLS AND TEST EQUIPMENT  
FOR  
PORTABLE SCRUB SINK**

(1) REFERENCE CODE	(2) MAINTENANCE LEVEL	(3) NOMENCLATURE	(4) NATIONAL STOCK NUMBER
01	O,F,H,D	Tool Kit, Medical Equipment Maintenance and Repair: Repairmans	5180-00-611-7923
02	O,F,H,D	Tool Kit, Medical Equipment Maintenance and Repair: Organizational	5180-00-611-7924
03	F,H	Shop Equipment, Medical Maintenance: Depot (MEDSOM) Maintenance	4940-00-594-6455
04	O,F,H,D	Multimeter, AN/USM 486 or Multimeter, AN/PSM 45A	6625-01-145-2430 6625-01-265-6000
05	O,F,H,D	Tester, Current Leakage	6625-01-142-8233

**Section IV. REMARKS  
FOR  
PORTABLE SCRUB SINK**

<b>(1) REFERENCE CODE</b>	<b>(2) REMARKS</b>
A	Tools and test equipment are listed for each assembly group.
B	Perform a semiannual electrical safety inspection and test. Perform the inspection and test after repair or replacement of electrical components.

# APPENDIX C

## COMPONENTS OF END ITEM AND BASIC ISSUE ITEMS LIST

### Section I. INTRODUCTION

#### C-1. Scope.

This appendix lists components of end item and basic issue items for the equipment to help you inventory items required for safe and efficient operation.

#### C-2. General.

The Components of End Item and Basic Issue Items lists are divided into the following sections.

- a. *Section II. Components of End Item.* These items are part of the end item, but are removed and separately packaged for transportation or shipment. As part of the end item, these items must be with the end item whenever it is issued or transferred between property accounts.
- b. *Section III. Basic Issue Items.* These are the minimum essential items required to place the equipment in operation, to operate it, and to perform emergency repairs. Basic issue items must be with the equipment during operation and whenever it is transferred between property accounts. This manual is your authority to request or requisition basic issue items, based on MTOE authorization of the end item.

#### C-3. Explanation of columns.

The following provides an explanation of columns found in both listings:

- a. *Item Number, Column 1.* This column indicates the item number assigned to the item.
- b. *National Stock Number, Column 2.* This column indicates the national stock number assigned to the item.
- c. *Description, Column 3.* This column indicates the federal item name and, if required, a minimum description to identify and locate the item. The last line for each item indicates the commercial and government entity (CAGE) code in parentheses followed by the part number.
- d. *Unit of Measure, Column 4.* This column indicates the unit of measure used in performing the actual operational or maintenance function. This measure is expressed by a two-character alphabetical abbreviation. These abbreviations are listed in the glossary.
- e. *Quantity, Column 5.* This column indicates the quantity (QTY) of the item(s) provided with the equipment.

**Section II. COMPONENTS OF END ITEM  
FOR  
PORTABLE SCRUB SINK**

(1) ITEM NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
1		Electrical Power Cable, 230-volt (53945) Not Available	EA	1
2		Case (53945) Not Available	EA	1

# APPENDIX D

## EXPENDABLE AND DURABLE SUPPLIES AND MATERIALS LIST

---

### Section I. INTRODUCTION

#### D-1. Scope.

This appendix lists expendable and durable supplies and materials that are required to maintain the equipment. This listing is authorization to requisition and retain the items if not otherwise authorized.

#### D-2. Explanation of columns.

- a. Item Number, Column 1.* The item number (Item No.) is sequentially assigned.
- b. Level, Column 2.* This column identifies the lowest level of maintenance that requires the listed item. An explanation of the alphabetical character is provided in appendix B, section I of this manual.
- c. National Stock Number, Column 3.* This column indicates the national stock number assigned to the item.
- d. Description, Column 4.* This column indicates the federal item name and, if required, a minimum description to identify and locate the item. The last line for each item indicates the CAGE code in parentheses followed by the part number.
- e. Unit of Measure, Column 5.* This column indicates the unit of measure used in performing the actual operational or maintenance function. This measure is expressed by a two-character alphabetical abbreviation. These abbreviations are listed in the glossary.
- f. Quantity, Column 6.* This column indicates the quantity (QTY) of the item(s) provided with the equipment.

**Section II. EXPENDABLE AND DURABLE SUPPLIES AND MATERIALS**  
**LIST FOR**  
**PORTABLE SCRUB SINK**

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) UNIT OF MEASURE	(6) QTY
1	O	7920-01-004-7847	Cloth, Cleaning (97327) Rymple Cloth 301	RO	1
2	O	8030-00-889-3534	Tape, Antiseizing, 3/10 in (81349) MIL-T-27730	RO	1
3	O	7920-00-619-9162	Brush, Scrub (81348) HB1490	EA	1
4	O	8030-00-180-6339	Caulking Compound (01139) SE1201	CA	1
5	O	8010-00-837-7969	Paint Thinner (Solvent) (81348) TT-T-291	GL	1

# APPENDIX E

## REPAIR PARTS AND SPECIAL TOOLS LIST

### Section I. INTRODUCTION

#### **E-1. Scope.**

This manual lists spare and repair parts, special tools, special test equipment; and other special support equipment required for the performance of unit level, direct support, general support, and depot level maintenance. It authorizes the requisitioning and issue of spare and repair parts in consonance with the MAC (app B).

#### **E-2. General.**

The Repair Parts and Special Tools List is divided into the following sections:

- a. *Repair Parts, Section II.* A list of repair parts authorized for the performance of maintenance in figure number and item number sequence.
- b. *Special Tools, Test, and Support Equipment, Section III.* A list of special tools, test, and support equipment authorized for the performance of maintenance.

#### **E-3. Explanation of columns in section II.**

##### *a. Illustration, Column 1.*

(1) *Figure Number.* This column indicates the figure number (Fig No.) of the illustration on which the item is shown.

(2) *Item Number.* This column indicates the item number (Item No.) used to identify each item on the illustration.

##### *b. National Stock Number, Column 2.* This column indicates the national stock number assigned to the item.

*c. Description, Column 3.* This column indicates the federal item name of the item. The last line for each item indicates the CAGE code in parentheses followed by the part number.

*d. Unit of Measure, Column 4.* This column indicates the unit of measure used in performing the actual operational or maintenance function. This measure is expressed by a two-character alphabetical abbreviation.

*e. Quantity, Column 5.* This column indicates the quantity (QTY) of the item(s) to be used with or on the illustrated component, assembly, module, or end item.

#### **E-4. Explanation of columns in section III.**

##### *a. Item Number, Column 1.* This number is sequentially assigned.

*b. Level, Column 2.* This column identifies the lowest level of maintenance that requires the listed item. An explanation of the alphabetical character is provided in appendix B, section I of this manual.

##### *c. National Stock Number, Column 3.* This column indicates the national stock number assigned to the item.

*d. Description, Column 4.* This column indicates the federal item name and, if required, a minimum description to identify and locate the item. The last line for each item indicates the CAGE code in parentheses followed by the part number.

*e. Unit of Measure, Column 5.* This column indicates the unit of measure used in performing the actual operational or maintenance function. This measure is expressed by a two-character alphabetical abbreviation.

*f. Quantity, Column 6.* This column indicates the quantity (QTY) of the item(s) to be used with or on the equipment.

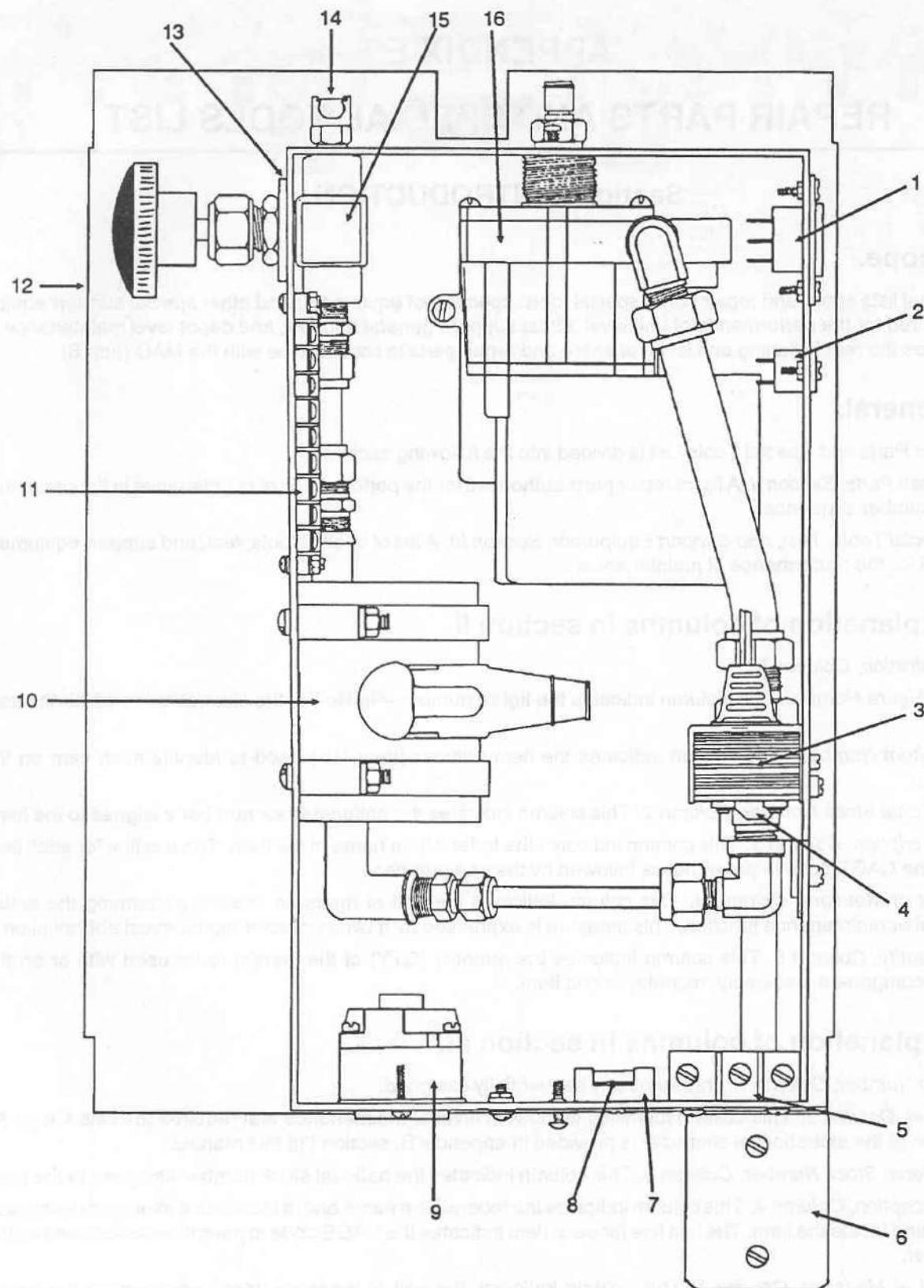


Figure E-1. Control box.

**Section II. REPAIR PARTS LIST**  
**FOR**  
**PORTABLE SCRUB SINK**

(1) ILLUSTRATION		(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
FIG NO.	ITEM NO.				
E-1	1		Receptacle, Electrical (16428) 17253	EA	1
E-1	2		Switch, Electrical Power Converter (09353) V802-12-SS-05-Q	EA	1
E-1	3		Converter, Voltage (9M133) M1600WATT	EA	1
E-1	4		Valve, Control (12623) B-1GS6	EA	1
E-1	5	5930-00-683-2745	Microswitch (3U475) BA-2RB-A2	EA	1
E-1	6		Foot Pedal (53945) 20392FD	EA	1
E-1	7		Fuseholder (75915) 357-001	EA	1
E-1	8	5920-00-199-9468	Fuse, Cartridge (04773) D27079A8	EA	1
E-1	9		GFCI (81091) 2081-F1	EA	1
E-1	10		Heater Assembly (06686) UH-12 (altered)	EA	1
E-1	11		Terminal Block Not Available	EA	1
E-1	12		Control Box (53945) 60153FD	EA	1
E-1	13		Washer Not Available	EA	1
E-1	14	4370-01-280-4101	Coupling, Half, Quick-disconnect, Female (62661) PLC100-04	EA	1
E-1	15	4820-01-131-6104	Valve (12623) B-1VF4	EA	1
E-1	16		Pump (25795) 1P681B	EA	1

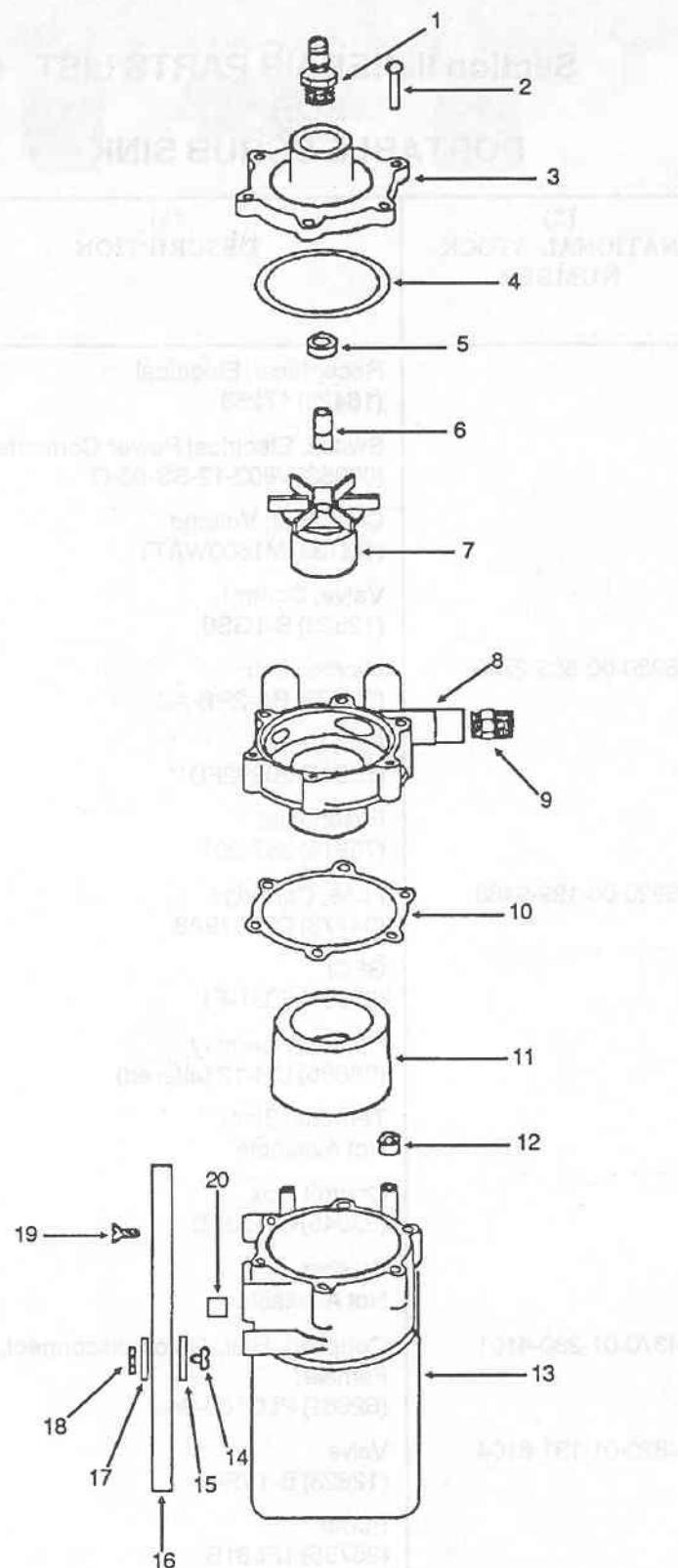


Figure E-2. Water pump assembly.

**Section II. REPAIR PARTS LIST  
FOR  
PORTABLE SCRUB SINK**

(1) ILLUSTRATION		(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
FIG NO.	ITEM NO.				
E-2	1		Coupling, Half, Quick-disconnect, Male (ODRP9) PLC240-06	EA	1
E-2	2		Screw, Slotted (25795) 125-013-10	EA	6
E-2	3		Cover, Impeller Housing (25795) 125-056-10	EA	1
E-2	4		O-ring (25795) 125-065-10	EA	1
E-2	5		Washer, Ceramic, Thrust (25795) 125-028-10	EA	1
E-2	6		Shaft, Impeller, Ceramic (25795) 125-061-10	EA	1
E-2	7		Impeller and Magnet Assembly (25795) 125-055-01	EA	1
E-2	8		Housing, Impeller (25795) 125-057-01	EA	1
E-2	9	4730-01-061-0632	Bushing (11649) B-6-RB-4	EA	1
E-2	10		Gasket (25795) 125-071-10	EA	1
E-2	11		Magnet, Drive Assembly (25795) 125-083-01	EA	1
E-2	12	5330-00-102-8913	Packing, Preformed (25795) 125-007-10	EA	2
E-2	13		Motor (25795) 125-059-02	EA	1
E-2	14		Screw Not Available	EA	2
E-2	15		Washer Not Available	EA	2
E-2	16		Base, Mounting (25795) 125-060-10	EA	1
E-2	17		Washer, Lock Not Available	EA	2
E-2	18		Nut Not Available	EA	2

**Section II. REPAIR PARTS LIST  
FOR  
PORTABLE SCRUB SINK**

(1) ILLUSTRATION		(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
FIG NO.	ITEM NO.				
E-2	19		Screw, Base (25795) 125-018-10	EA	4
E-2	20		Bracket, Pipe Plug (25795) 125-026-10	EA	1

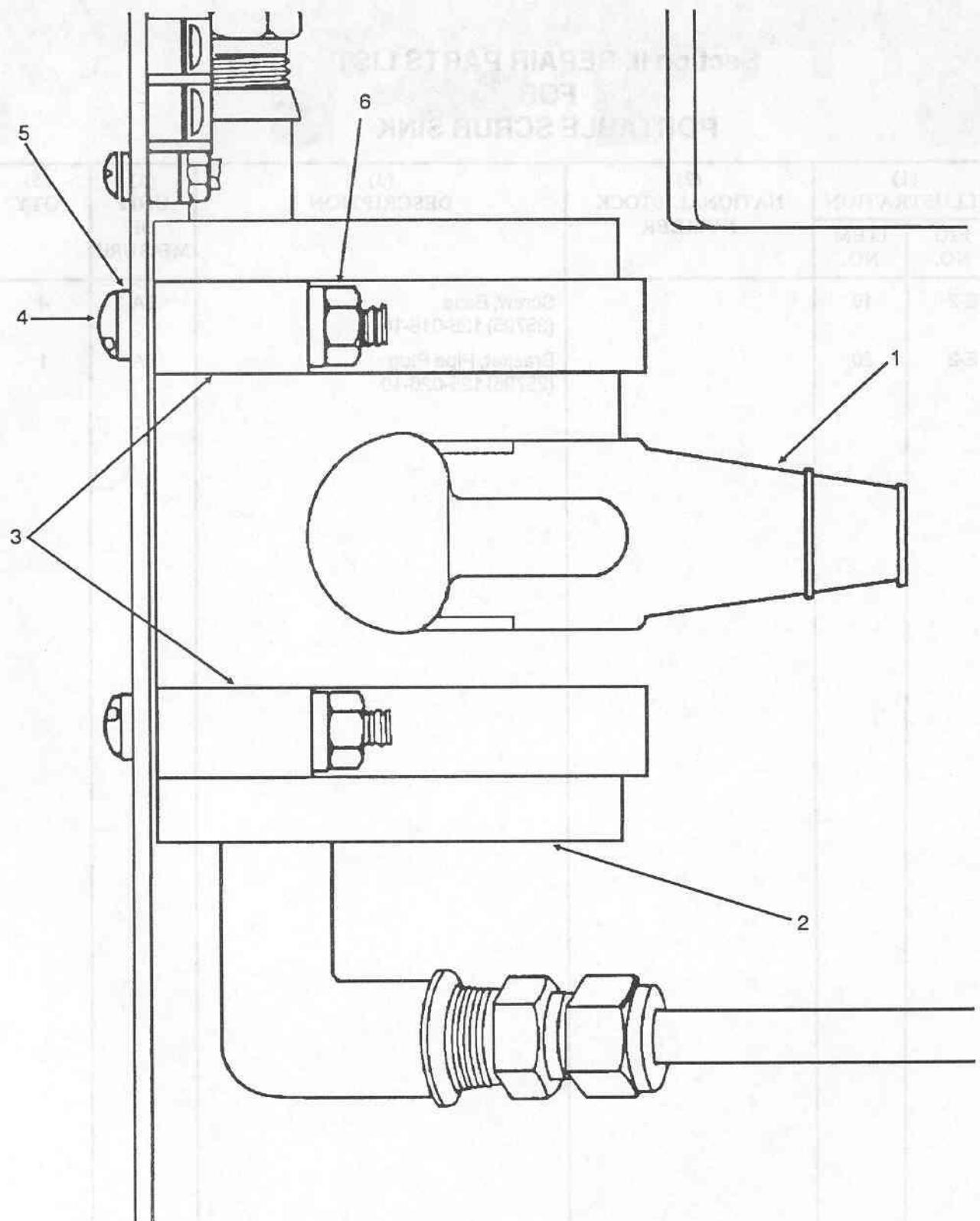


Figure E-3. Water heater.

**Section II. REPAIR PARTS LIST**  
**FOR**  
**PORTABLE SCRUB SINK**

(1) ILLUSTRATION		(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
FIG NO.	ITEM NO.				
E-3	1	6150-01-317-8447	Cable Assembly, Special Purpose (06686) MK6-75 (altered)	EA	1
E-3	2		Sleeve, Fire, Heater (Thermal Blanket) (01276) AE102/624-42	EA	1
E-3	3		Clamp Not Available	EA	2
E-3	4		Screw, Mounting Not Available	EA	2
E-3	5		Washer Not Available	EA	4
E-3	6		Nut Not Available	EA	2
E-3	*		Element, Heating (06686) UH-12 (altered)	EA	1
E-3	*		Thermostat Not Available	EA	1
* Not Illustrated.					

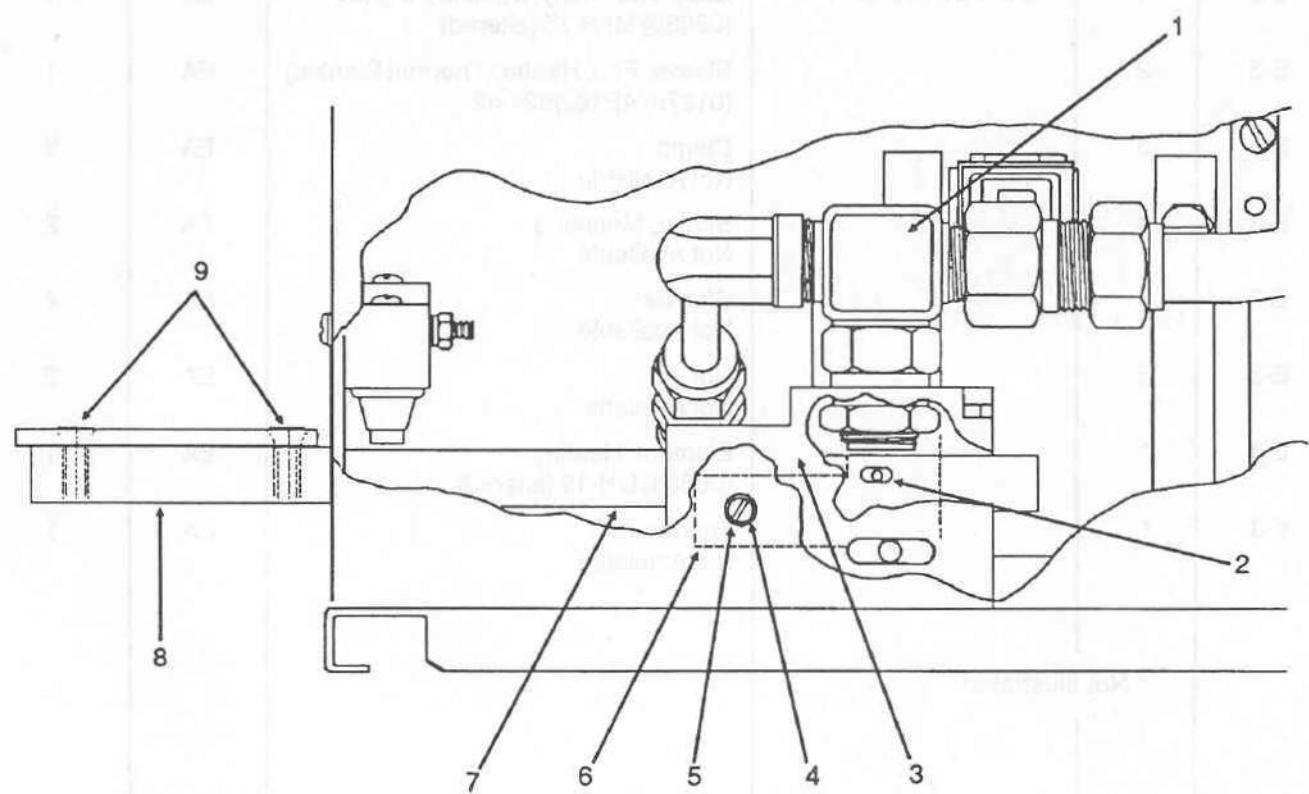


Figure E-4. Foot operated control valve.

**Section II. REPAIR PARTS LIST  
FOR  
PORTABLE SCRUB SINK**

(1) ILLUSTRATION		(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
FIG NO.	ITEM NO.				
E-4	1		Valve, Toggle-operated (12623) B-1GS6	EA	1
E-4	2		Pin (53945) Not Available	EA	1
E-4	3		Bracket (53945) 30329FD	EA	1
E-4	4		Screw (53945) Not Available	EA	3
E-4	5		Washer (53945) Not Available	EA	3
E-4	6		Plate, Locking (53945) 20314FD	EA	1
E-4	7		Arm (53945) 30350FD	EA	1
E-4	8		Pedal (53945) 20392FD	EA	1
E-4	9		Screw (53945) Not Available	EA	2

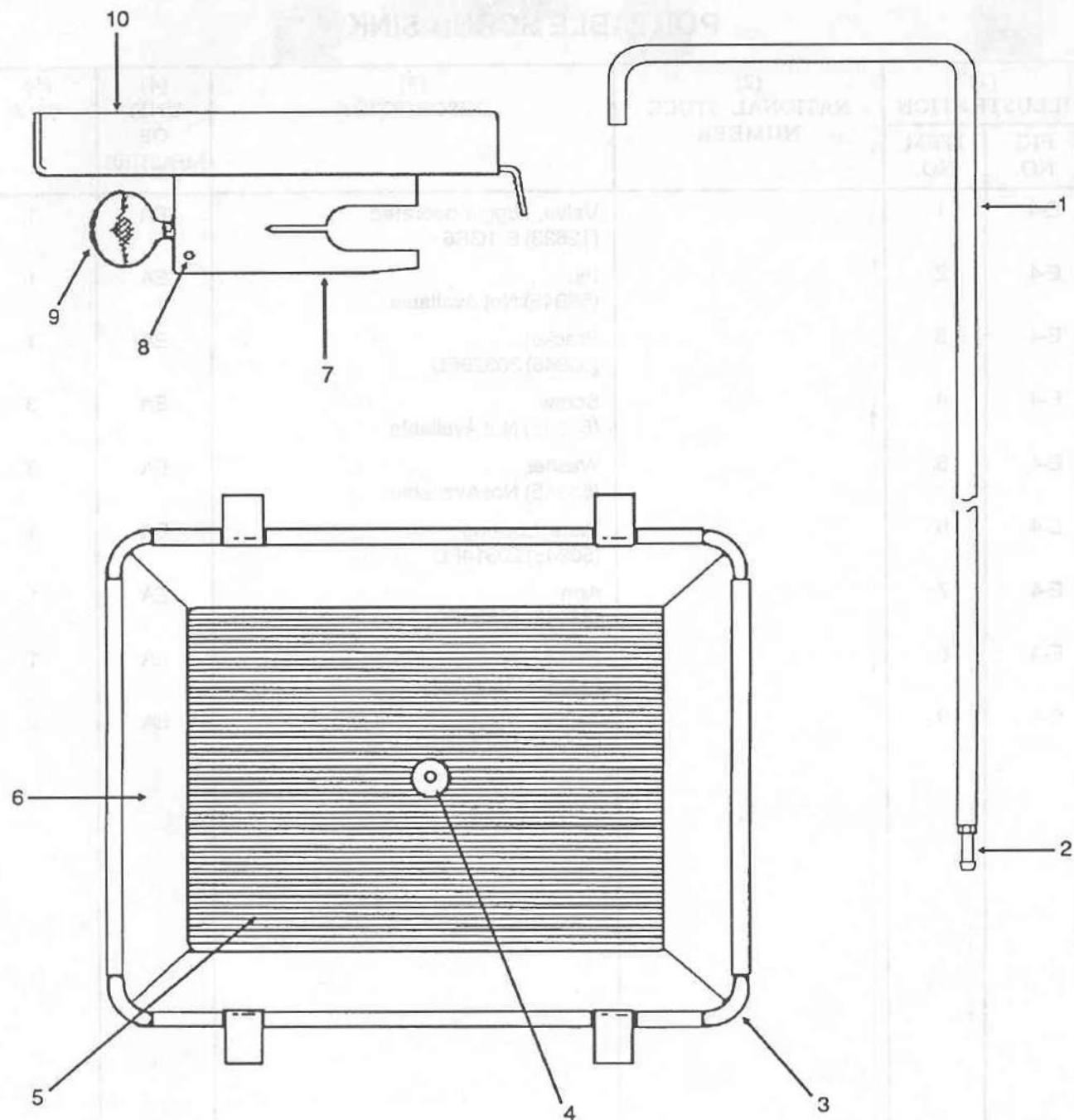


Figure E-5. Faucet, convenience tray, and basin assembly.

**Section II. REPAIR PARTS LIST  
FOR  
PORTABLE SCRUB SINK**

(1) ILLUSTRATION		(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
FIG NO.	ITEM NO.				
E-5	1		Faucet (53945) 3032FD	EA	1
E-5	2		Fitting, Barb (OAVXI) 1551	EA	1
E-5	3		Frame (53945) 40013FD	EA	1
E-5	4		Fitting, Drain (53945) 20383FD	EA	1
E-5	5		Mat, Basin, Rubber (53945) 30349FD	EA	1
E-5	6		Basin, Fabric (53945) 40196FD	EA	1
E-5	7		Bracket (53945) 30311FD	EA	1
E-5	8		Pin, Spring (53945) Not Available	EA	1
E-5	9		Thumbscrew (53945) 30311FD	EA	1
E-5	10		Tray (53945) 40183FD	EA	1

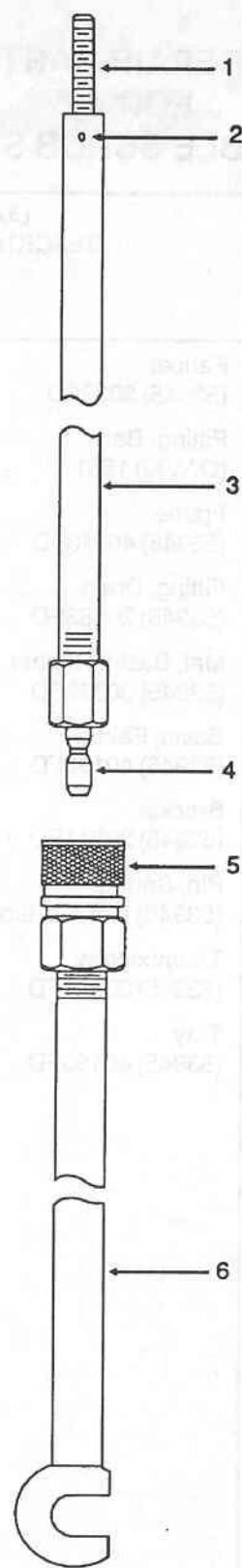


Figure E-6. Support rods.

**Section II. REPAIR PARTS LIST  
FOR  
PORTABLE SCRUB SINK**

(1) ILLUSTRATION		(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
FIG NO.	ITEM NO.				
E-6	1		Stud, Threaded (53945) 20380FD.50	EA	1
E-6	2		Pin, Spring (53945) Not Available	EA	1
E-6	3		Rod, Upper Support (53945) 30304FD	EA	1
E-6	4	4730-01-225-1437	Coupling, Half, Quick-disconnect, Male (02570) SS-QF4-S-4PF	EA	1
E-6	5		Coupling, Half, Quick-disconnect, Female (02570) SS-QF4-B-4PF	EA	1
E-6	6		Rod, Lower Support (53945) 30306FD	EA	1

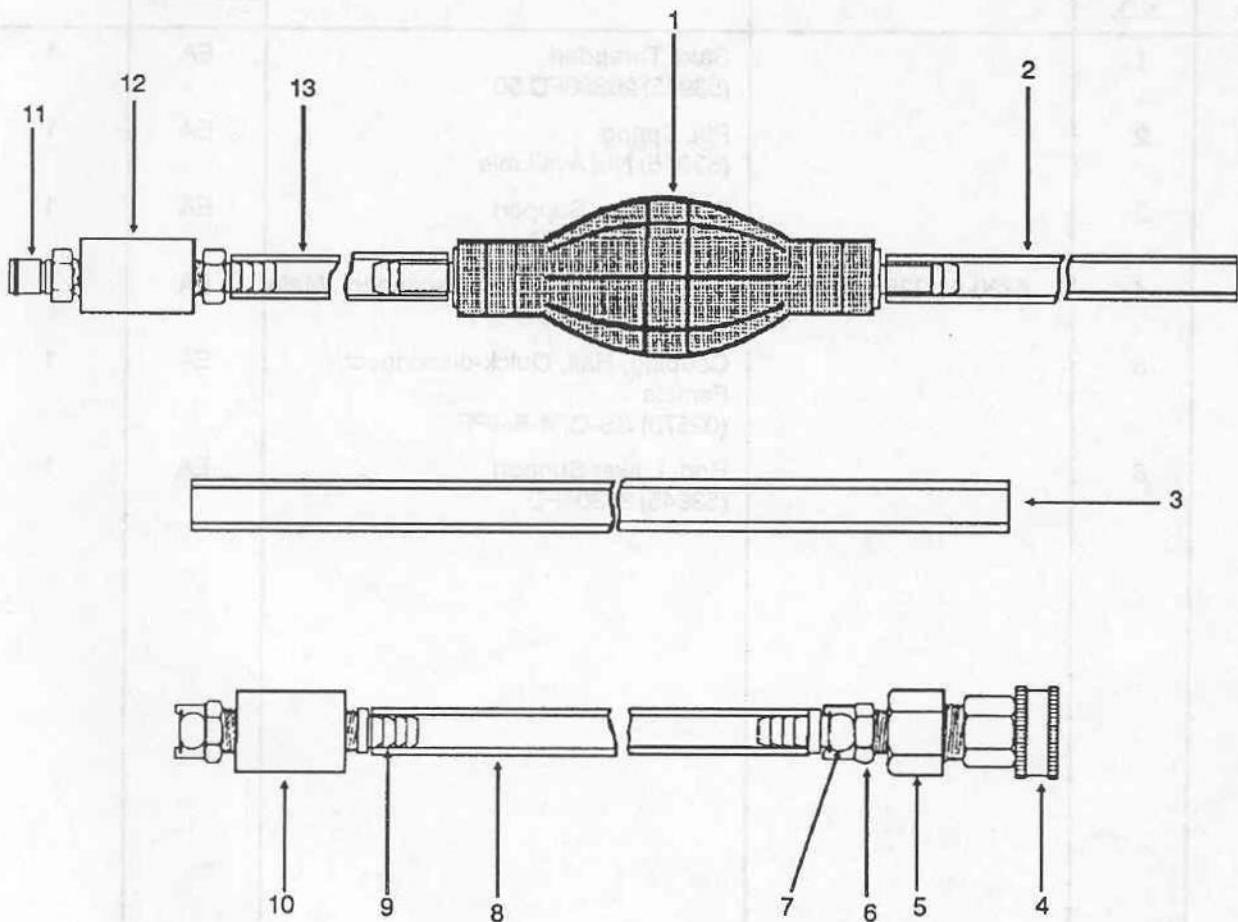


Figure E-7. Hose assemblies.

**Section II. REPAIR PARTS LIST  
FOR  
PORTABLE SCRUB SINK**

(1) ILLUSTRATION		(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
FIG NO.	ITEM NO.				
E-7	1		Primer Bulb (5S187) 89396A38	EA	1
E-7	2	4720-00-058-5452	Tubing (1DS07) B44-4X	EA	1
E-7	3	4720-01-058-5452	Tubing (1DS07) B44-4X	EA	1
E-7	4		Connector, Brass (14679) HUS11-8-12	EA	1
E-7	5		Coupling, Reducer (05668) N-06349-34	EA	1
E-7	6	4730-01-317-8460	Coupling, Half, Quick-disconnect, Female (ORDP9) PLC100-06	EA	2
E-7	7	4730-01-321-5185	Coupling, Half, Quick-disconnect, Male (ORDP9) PLC200-05	EA	1
E-7	8	4720-00-058-5452	Tubing (1DS07) B44-4X	EA	1
E-7	9		Fitting, Barbed (74932) N5MCB-6	EA	1
E-7	10		Coupling, Threaded (05668) N-06349-02	EA	1
E-7	11	4730-01-321-5186	Coupling, Half, Quick-disconnect, Male (ORDP9) PLC240-04	EA	1
E-7	11		Coupling, Threaded (05668) N-06349-01	EA	1
E-7	13	4720-00-058-5452	Tubing (1DS07) B44-4X	EA	1
E-7	*		O-ring (ORDP9) 1003-11	EA	1
* Not illustrated.					

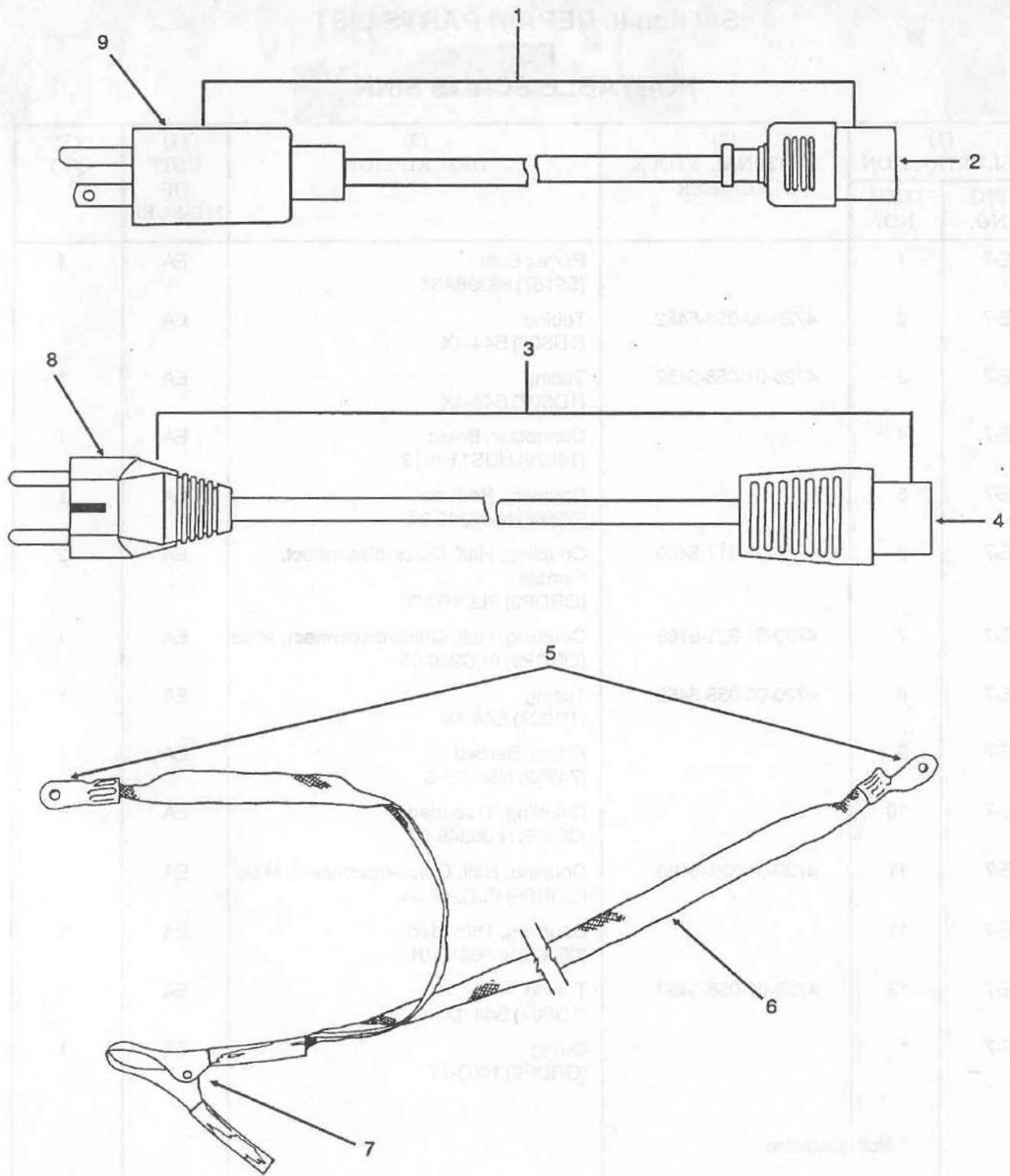


Figure E-8. Electrical power cables and ground strap.

**Section II. REPAIR PARTS LIST  
FOR  
PORTABLE SCRUB SINK**

(1) ILLUSTRATION		(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
FIG NO.	ITEM NO.				
E-8	1		Cable Assembly, Electrical, 115-volt (16U28) 17016	EA	1
E-8	2		Connector, Female (5F520) 83011151	EA	1
E-8	3		Cable Assembly, Electrical, 230-volt Not Available	EA	1
E-8	4		Connector, Female (5F520) 83011151	EA	1
E-8	5		Terminal, Ring (02929) 31N2815	EA	1
E-8	6		Braid, Copper, Flat (02929) 37F1151WA	EA	1
E-8	7		Clip, Electrical (02929) 46F3811	EA	1
E-8	8		Connector, Male, 230-volt (5F520) 89010801	EA	1
E-8	9		Connector, Male, 115-volt (5F520) 8215.CT	EA	1

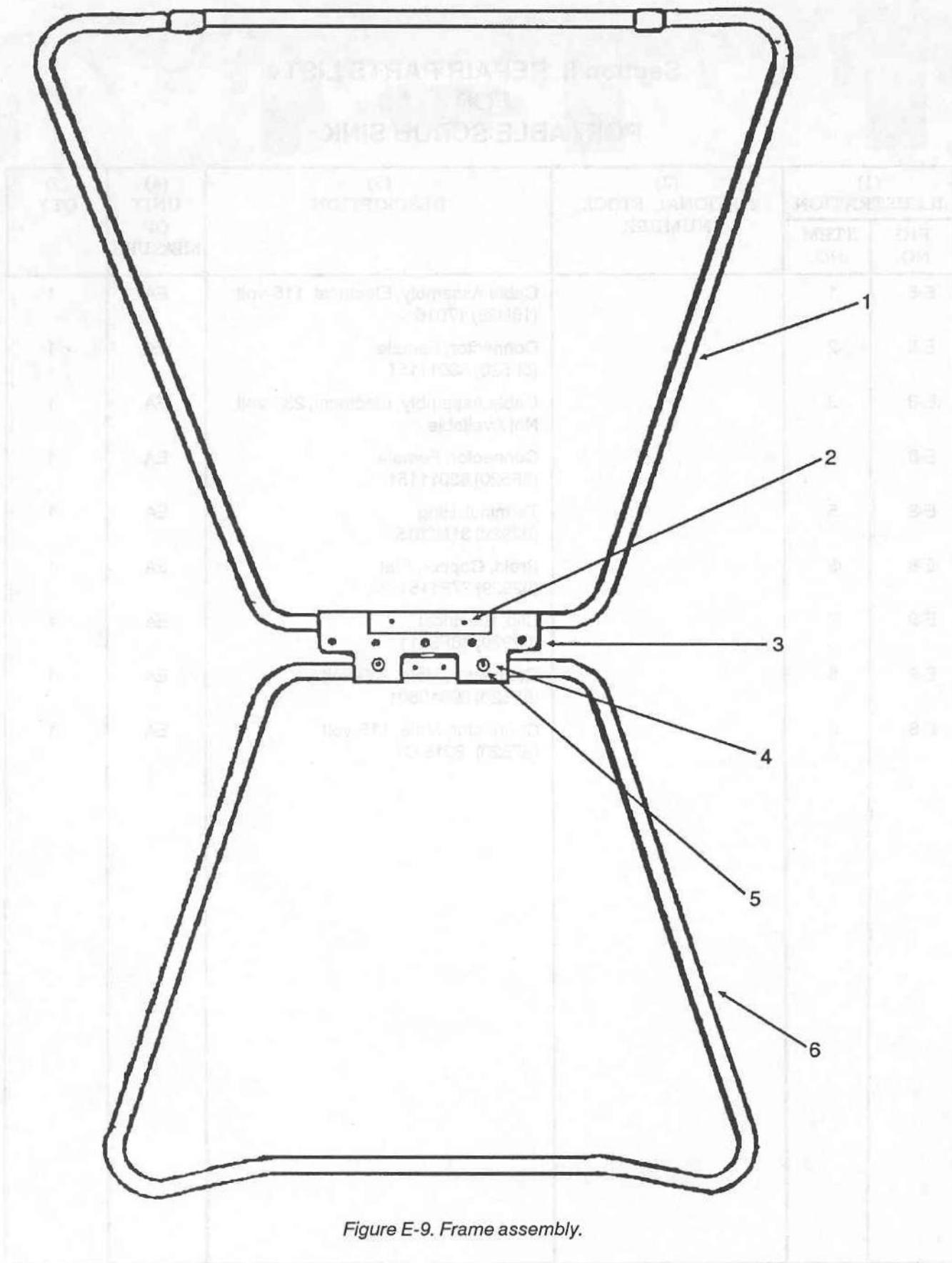


Figure E-9. Frame assembly.

**Section II. REPAIR PARTS LIST  
FOR  
PORTABLE SCRUB SINK**

(1) ILLUSTRATION		(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
FIG NO.	ITEM NO.				
E-9	1		Leg, Upper (53945) 40186FD	EA	2
E-9	2		Spring Pin Not Available	EA	8
E-9	3		Hinge (53945) 40192FD	EA	1
E-9	4		Screw Not Available	EA	2
E-9	5		Washer, Lock (53945) 20381FD	EA	2
E-9	6		Leg, Lower (53945) 40185FD	EA	2
E-9	*		Screw Not Available	EA	5
E-9	*		Nut, Hex Not Available	EA	5

\* Not Illustrated.

**Section III. SPECIAL TOOLS, TEST, AND SUPPORT EQUIPMENT  
FOR  
PORTABLE SCRUB SINK**

(1) ITEM NO.	(2) LEVEL	(3) NATIONAL STOCK NUMBER	(4) DESCRIPTION	(5) UNIT OF MEASURE	(6) QTY
1	O	6685-00-444-3000	Thermometer, Self-indicating (81348) GGT336	EA	1

# APPENDIX F

## ADDITIONAL AUTHORIZATION LIST

### Section I. INTRODUCTION

#### F-1. Scope.

This appendix lists additional items that are authorized for support of the portable scrub sink.

#### F-2. General.

This list identifies items that should not accompany the portable scrub sink and that will not be turned in with it. These items are all authorized to you by CTA, MTOE, TDA, or JTA.

#### F-3. Explanation of columns.

The following provides an explanation of columns found in the list:

- a. *Item Number, Column 1.* This column indicates the item number assigned to the item.
- b. *National Stock Number, Column 2.* This column indicates the national stock number assigned to the item.
- c. *Description, Column 3.* This column indicates the federal item name and, if required, a minimum description to identify and locate the item. The last line for each item indicates the commercial and government entity (CAGE) code in parentheses followed by the part number.
- d. *Unit of Measure, Column 4.* This column indicates the unit of measure used in performing the actual operational or maintenance function. This measure is expressed by a two-character alphabetical abbreviation. These abbreviations are listed in the glossary.
- e. *Quantity, Column 5.* This column indicates the quantity (QTY) of the item(s) for optional use.

**Section II. ADDITIONAL AUTHORIZATION LIST  
FOR  
PORTABLE SCRUB SINK**

(1) ITEM NUMBER	(2) NATIONAL STOCK NUMBER	(3) DESCRIPTION	(4) UNIT OF MEASURE	(5) QTY
1	7240-00-089-3827	Can, Water, Plastic, 5-gal Capacity (81349) MIL-C-43613	EA	2
2	6530-01-302-7085	Dispenser, Surgical, Detergent, Free-standing, Foot-operated (66240) 344	EA	1

# GLOSSARY

---

AFR	Air Force regulation.
AMP	Ampere (fig 3-1 & fig 3-2).
app	Appendix.
AR	Army regulation.
BLK	Black (fig 3-1 & fig 3-2).
C	Operator or crew.
CA	Cartridge.
CAGE	Commercial and government entity.
cm	Centimeter.
Co.	Company.
CTA	Common table of allowances.
D	Depot level maintenance.
DA	Department of the Army.
°C	Degrees Celsius.
°F	Degrees Fahrenheit.
DLAM	Defense Logistics Agency Manual.
DPSC	Defense Personnel Support Center.
DS	Direct support.
EA	Each.
F <sub>1</sub>	Fuse (fig 3-1 & fig 3-2).
F	Direct support maintenance.
FEDLOG	Federal Logistics Data.
fig	Figure.
FM	Field manual.
FT(ft)	Foot (feet).
GL	Gallon.
GFCI	Ground fault circuit interrupter.
GRN	Green (fig 3-1 & fig 3-2).
GS	General support.
H	General support maintenance.
H	Heater (water) (fig 3-1 & fig 3-2).
Hz	Hertz (cycles per second).
id	Inner diameter.
in	Inch.
Inc.	Incorporated.
J <sub>1</sub>	Electrical power cable receptacle (fig 3-2).

JTA	Joint table of allowances.
KT	Kit.
lbs	Pounds.
M	Motor (pump) (fig 3-1 & fig 3-2).
MAC	Maintenance allocation chart.
MAX	Maximum.
MEDSOM	Medical supply, optical, and maintenance.
MFG	Manufacturer.
MFGD	Date of manufacture.
MTOE	Modified table of organization and equipment.
NC	Normally closed (switch position) (fig 3-2).
NO	Normally open (switch position) (fig 3-2).
No.	Number.
NSN	National stock number.
O	Unit maintenance.
od	Outer diameter.
para	Paragraph.
PMCS	Preventive maintenance checks and services.
QA	Quality assurance.
QC	Quality control.
QTY	Quantity.
RO	Roll.
RX	Reparable exchange.
S <sub>1</sub>	Switch (fig 3-1 & fig 3-2).
S <sub>2</sub>	Switch (fig 3-1 & fig 3-2).
sec	Section.
SB	Supply bulletin.
SOP	Standing operating procedure.
T	Thermostat (fig 3-1 & fig 3-2).
TB	Technical bulletin.
TB1	Terminal strip (electrical) (fig 3-2).
TDA	Table of distribution and allowances.
TM	Technical manual.
VC	Voltage converter (fig 3-1 & fig 3-2).
VELCRO®	VELCRO® is defined as VELCRO® brand hook and/or loop fasteners, and VELCRO® is a registered trademark of VELCRO Industries.
WHT	White (fig 3-1 & fig 3-2).
YEL	Yellow (fig 3-2).

# Index

---

This index is organized alphabetically by topic and by subtopic. Topics and subtopics are identified by paragraph number.

- Accessory pouch, 1-12, 2-1, 2-2, 3-34, 3-35
- Additional authorized items, 3-7
- Administrative storage, 1-5
- Air relief valve, 1-12, 2-1, 3-33, 3-35
- Assembly
  - Adapter, 1-12, 2-2, 2-5
  - Basin, 2-2, 3-35
  - Frame, 1-12, 2-1, 2-2, 3-1, 3-28, 3-35
  - Inlet hose, 1-12, 2-1, 2-2, 2-5, 3-13, 3-35
  - Outlet hose, 1-12, 2-1, 3-35
- Basic issue items, 2-1, 3-3
- Basin, 1-12, 2-2
- Basin frame, 1-12, 2-2
- Basin mat, 2-1, 3-34
- Bulb, primer, 1-12, 2-3, 2-4, 3-13
- Cable, electrical power, 1-12, 2-1, 2-4, 2-5, 3-13, 3-16, 3-35
- Case, 1-12, 1-13, 2-1
  - Gasket, 3-30
  - Handles, 3-32
  - Twist-lock latches, 3-31
- Caution, 2-2, 2-4, 2-5, 2-9
- Cleaning, 1-15, 3-34, 3-35
- Common names, 1-8
- Complaints, medical materiel, 1-9
- Components of end item, 1-12, 3-3
- Control box, 1-12, 1-13, 2-1, 2-2, 2-4, 2-5, 3-1, 3-13, 3-15, 3-16, 3-35
- Control box water flow diagram, 3-13
- Control functions, 1-17
- Convenience tray, 1-12, 2-1, 2-2, 3-35
- Converter switch, 2-3, 2-4, 2-5, 3-13, 3-25
- Converter, voltage, 3-24
- Decals, 1-13
- Deficiencies, reporting, 3-12

Destruction of Army materiel, 1-4

Diagram

Control box water flow, 3-13

Electrical wiring, 3-13

Differences, model, 1-14

Dimensions, 1-13

Drain hose, 1-12, 2-2, 3-35

Electrical power cable, 1-12, 2-1, 2-4, 2-5, 3-13, 3-16, 3-35

Electrical power converter switch, 2-3, 2-4, 2-5, 3-13, 3-25

Electrical power receptacle, 3-26

Electrical requirements, 1-13

Electrical schematic, 3-13

Electrical wiring diagram, 3-13

Expendable supplies, 3-4

Explanation of abbreviations and terms, 1-2

Faucet, 1-12, 2-1, 2-2, 2-4, 3-13, 3-35

Female quick-disconnect, 2-2

Flow control knob, 1-17, 2-3, 2-5, 3-9

Flow control valve, 3-13, 3-15

Foot pedal, 1-17, 2-3, 2-4, 3-13, 3-22, 3-35

Foot pedal assembly microswitch, 3-23

Forms, 1-3

Frame assembly, 1-12, 2-1, 2-2, 3-1, 3-28, 3-35

Fuseholder, 3-21

Gasket, case, 3-30

Ground fault circuit interrupter, 1-12, 1-15, 1-17, 2-3, 3-1, 3-13, 3-18

Ground strap, 1-12, 2-4, 2-5, 3-9

Handles, case, 3-32

Heater power cable, 3-20

Heater thermostat, 3-19

Heater, water, 3-17

Hose

Drain, 1-12, 2-1, 2-2, 3-35

Outlet, 2-3, 2-4

Impeller, water pump, 3-27

Inlet hose assembly, 1-12, 2-1, 2-2, 2-5, 3-13

Knob, flow control, 1-17, 2-3, 2-5, 3-9

Latches, twist-lock, 2-1, 3-31, 3-35

Lubrication, 3-10  
Male quick-disconnect, 2-2  
Microswitch, foot pedal assembly, 3-23  
Model differences, 1-14  
Nomenclature cross-reference, 1-8  
Non-pressurized water source, 2-2  
Note, 1-12, 2-1, 2-2, 2-4, 2-5, 3-10, 3-11, 3-14, 3-15, 3-22, 3-24, 3-29, 3-35  
Official nomenclature, 1-8  
Operation under unusual conditions, 2-9, 2-10  
Outlet hose, 2-3, 2-4  
Outlet hose assembly, 1-12, 2-1, 2-2, 3-35  
Packing, 3-35  
Portable water can, 1-11, 1-12, 2-2, 2-5, 2-8  
Pouch, accessory, 1-12, 2-1, 2-2, 3-34, 3-35  
Power cable, heater, 3-20  
Pressurized water source, 2-2, 2-5  
Preventive maintenance checks and services, 1-5, 3-11, 3-12  
Primer bulb, 1-12, 2-3, 2-4, 3-13  
Pump, water, 3-13, 3-16  
Quality assurance or quality control, 1-7  
Quick-disconnect, 3-29  
    Female, 2-2  
    Male, 2-2  
Receptacle, electrical power, 3-26  
Records, 1-3, 1-5  
Repair parts, 3-5  
Reports, 1-3  
Rods, support, 1-12, 2-1, 2-2, 3-35  
Safety, care, and handling, 1-15  
Schematic, electrical 3-13  
Scope, 1-1  
Shipping, 3-35  
Special tools, 3-6  
Storage  
    Administrative, 1-5  
    Preparation, 1-6, 3-35  
Strap, ground, 1-12, 2-4, 2-5  
Support rods, 1-12, 2-1, 2-2, 3-35

Switch, converter, 2-3, 2-4, 2-5, 3-13, 3-25  
Tabulated data, 1-13  
Temperatures, 1-13, 2-4, 2-9  
Terms, explanation, 1-2  
Test equipment, 3-2  
Thermostat, heater, 3-19  
Tools, 3-2  
Tray, convenience, 1-12, 2-1, 2-2, 3-35  
Troubleshooting  
    Support level, 4-3  
    Unit level, 3-13  
Twist-lock latches, 2-1, 3-31, 3-35  
Type of manual, 1-1  
Unit level maintenance, 3-1  
Unpacking, 2-1  
Valve, air relief, 1-12, 2-1, 3-33, 3-35  
Valve, flow control, 3-13, 3-15  
Voltage, 2-4, 2-5, 3-13  
Voltage converter, 3-24  
Warning, 2-3, 2-4, 2-5, 3-13, 3-20  
Warranty, 1-10  
Waste water, 1-12, 2-5  
Water heater, 3-17  
Water pump, 3-13, 3-16  
Water pump impeller, 3-27  
Water source  
    Non-pressurized, 2-2  
    Pressurized, 2-2, 2-5  
Weight, 1-13

## RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

## SOMETHING WRONG WITH THIS PUBLICATION?



THEN. . JOT DOWN THE DOPE ABOUT IT ON THIS FORM. CAREFULLY TEAR IT OUT. FOLD IT AND DROP IT IN THE MAIL'

FROM (PRINT YOUR UNIT'S COMPLETE ADDRESS)

Cdr, USABBD  
Maintenance Shop  
Frederick, MD 21702

DATE SENT

20 Mar 89

PUBLICATION NUMBER

PUBLICATION DATE

PUBLICATION TITLE

TM 8-6545-001-24&amp;P

6 Feb 88

Sink Unit, Surgical Scrub, Field

BE EXACT. PIN-POINT WHERE IT IS

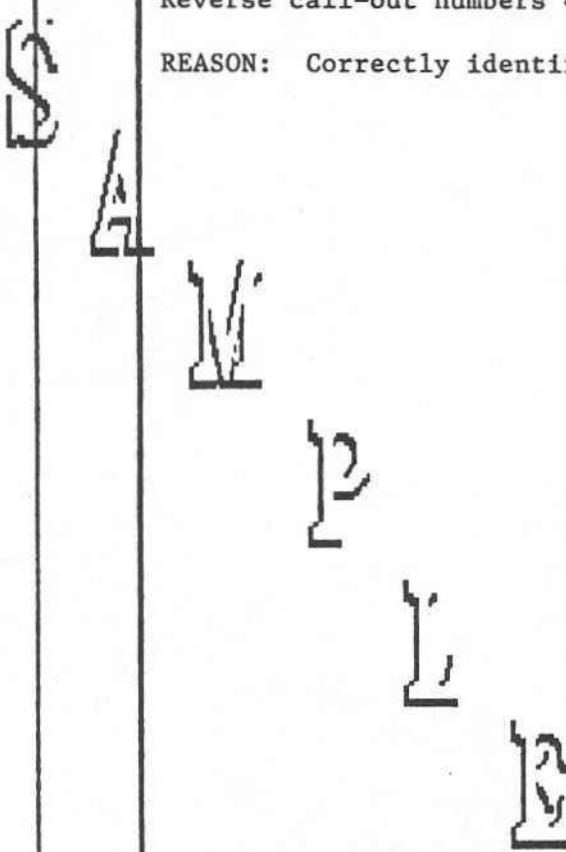
IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

2-7 2-16      Change quick-disconnect to quick-disconnect, male.

REASON: Corrects nomenclature.

E-31 E-7      Reverse call-out numbers 4 and 8.

REASON: Correctly identifies part.



PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER

JOHN DOE, Maintenance Supervisor  
DSN 343-XXXX

SIGN HERE

DA FORM 2028-2 1 JUL 79

\* U.S. Government Printing Office 1986-491-003/50523

PREVIOUS EDITIONS  
ARE OBSOLETE.

P.S. --IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR  
RECOMMENDATION MAKE A CARBON COPY OF THIS  
AND GIVE IT TO YOUR HEADQUARTERS

## RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

## SOMETHING WRONG WITH THIS PUBLICATION?



THEN... JOT DOWN THE  
DOPE ABOUT IT ON THIS  
FORM. CAREFULLY TEAR IT  
OUT. FOLD IT AND DROP IT  
IN THE MAIL'

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER

TM 8-6545-001-24&amp;P

PUBLICATION DATE

PUBLICATION TITLE

Sink Unit, Surgical Scrub, Field

BE EXACT... PIN-POINT WHERE IT IS

IN THIS SPACE TELL WHAT IS WRONG  
AND WHAT SHOULD BE DONE ABOUT IT:

PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE

THIS IS A MEDICAL MAIL  
THIS IS A MEDICAL MAIL

ARMY MEDICAL MAIL

ARMED FORCES MAIL

ARMED FORCES MAIL

21702-5001-5001

ARMED FORCES MAIL

ARMED FORCES MAIL

ARMED FORCES MAIL

FILL IN YOUR  
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS

Commander  
U.S. Army Medical Materiel Agency  
ATTN: SGMMA-M  
Frederick, MD 21702-5001

CUT ALONG PERFORATED LINE